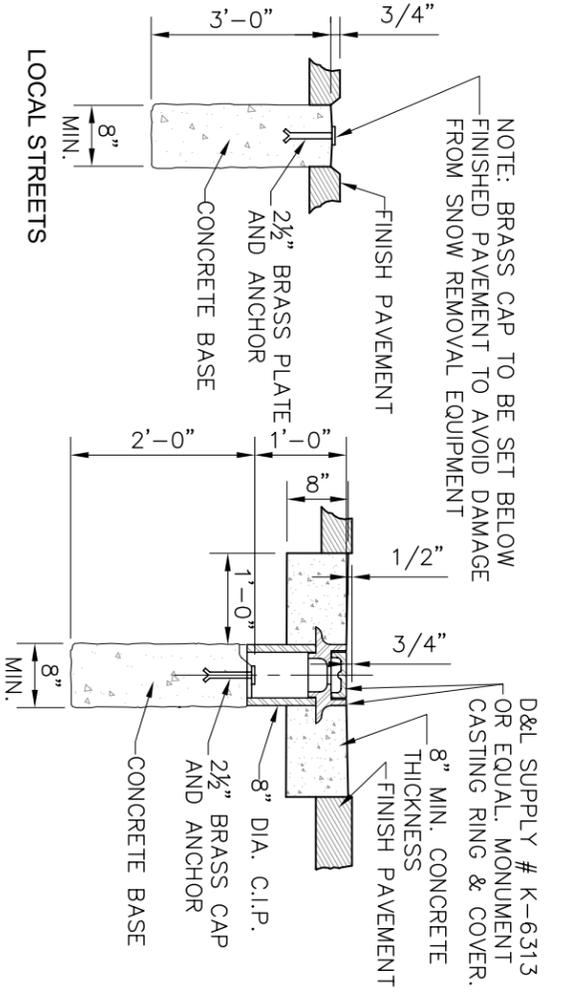
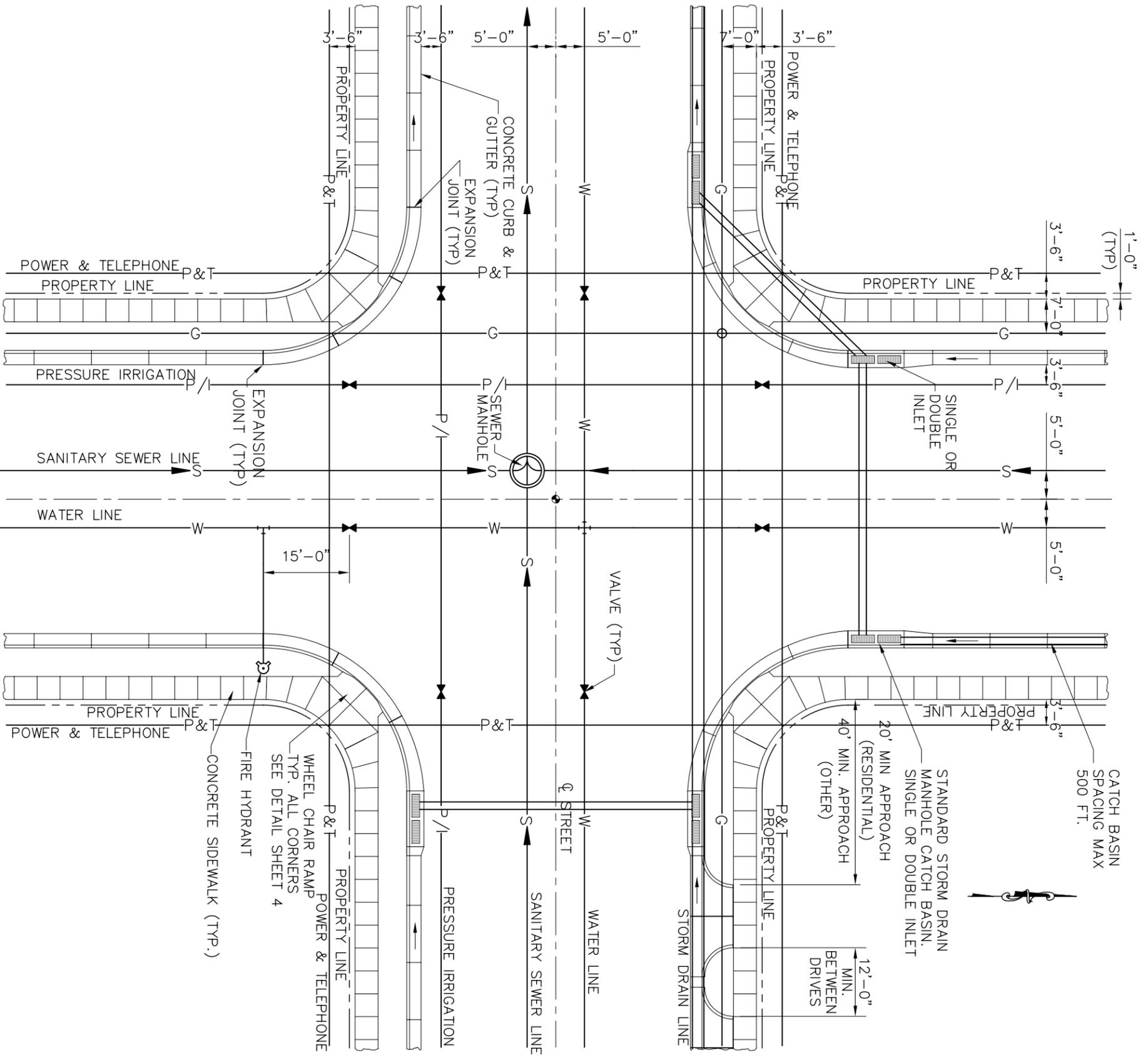


CLINTON CITY CORPORATION DEVELOPMENT STANDARDS

RELEASED FOR CONSTRUCTION
DECEMBER 2007

TABLE OF CONTENTS	
SHEET	DESCRIPTION
1	COVER SHEET
2	STANDARD STREET IMPROVEMENTS
3	STANDARD STREET SECTIONS AND DRIVEWAY DETAILS
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5	TYPICAL FIRE HYDRANT AND WATER SERVICE CONNECTION DETAILS
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7	STANDARD CATCH BASINS
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13	HORIZONTAL AND VERTICAL THRUST BLOCKS AND WATER LOOP DETAIL
14	CULINARY WATER TRENCH DETAILS
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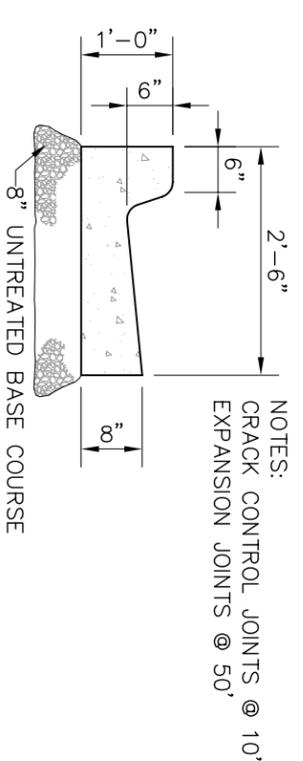




SURVEY MONUMENT SECTION

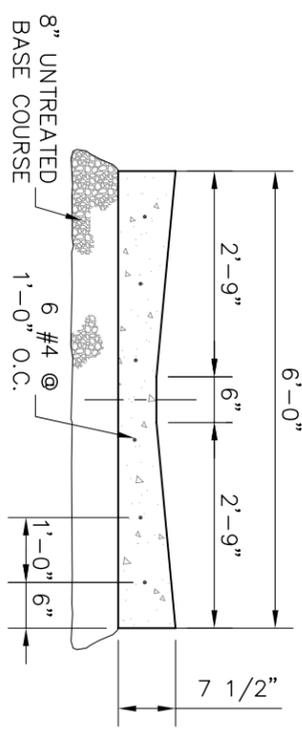
- NOTES:
1. 6" THICKNESS IN RESIDENTIAL AND COMMERCIAL DRIVEWAYS
 2. CRACK CONTROL JOINTS @ 4'
 3. EXPANSION JOINTS @ 32'
 4. SIDEWALK MAY BE WIDER WHERE SPECIFIED BY CITY ENGINEERING DEPT.

SIDEWALK SECTION



STANDARD CURB & GUTTER SECTION

- NOTES:
 CONSTRUCTION & EXPANSION JOINTS @ 5'
 EXPANSION JOINTS @ EDGE OF APRON



CROSS DRAIN SECTION

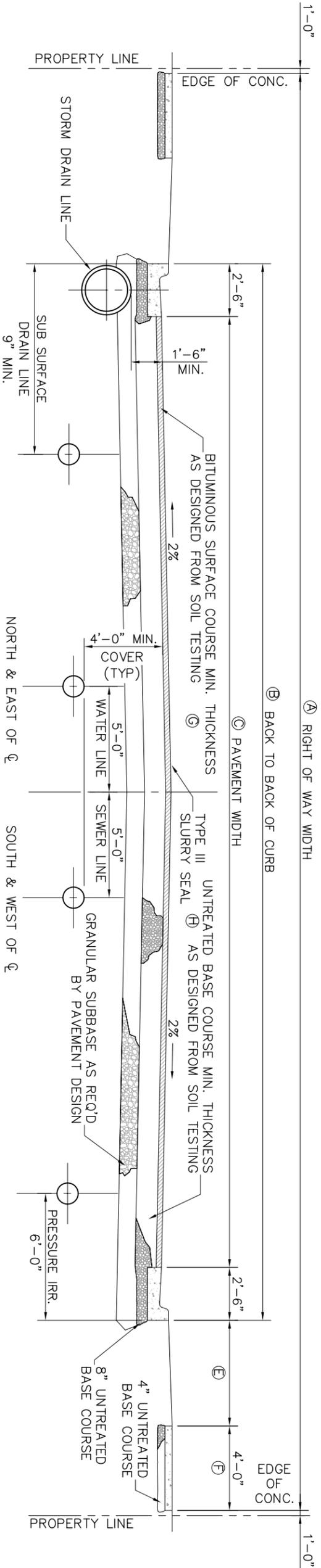
DEVELOPMENT STANDARDS
 CLINTON CITY CORPORATION
 STANDARD STREET IMPROVEMENTS

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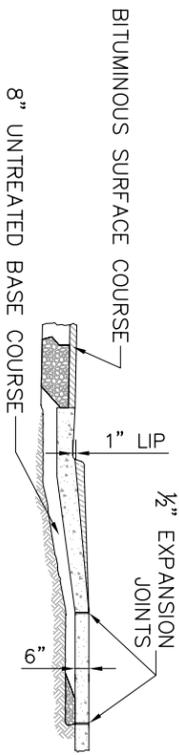


- NOTES:
1. TOP BACK OF CURB ON BOTH SIDES OF ROAD TO BE SAME ELEVATIONS.
 2. THE CITY ENGINEER SHALL VERIFY PAVEMENT DESIGN PRESCRIBED BY SOILS REPORT. (SEE SPECIFICATIONS)
 3. COMMERCIAL AND INDUSTRIAL STREET SECTIONS ARE DETERMINED BASED ON A TRAFFIC ANALYSIS FOR THE PARTICULAR USE.

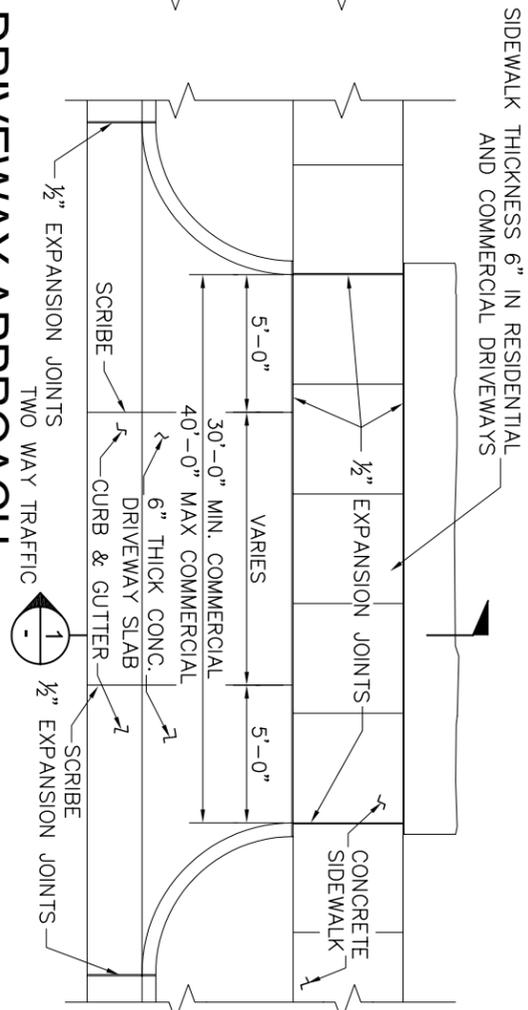
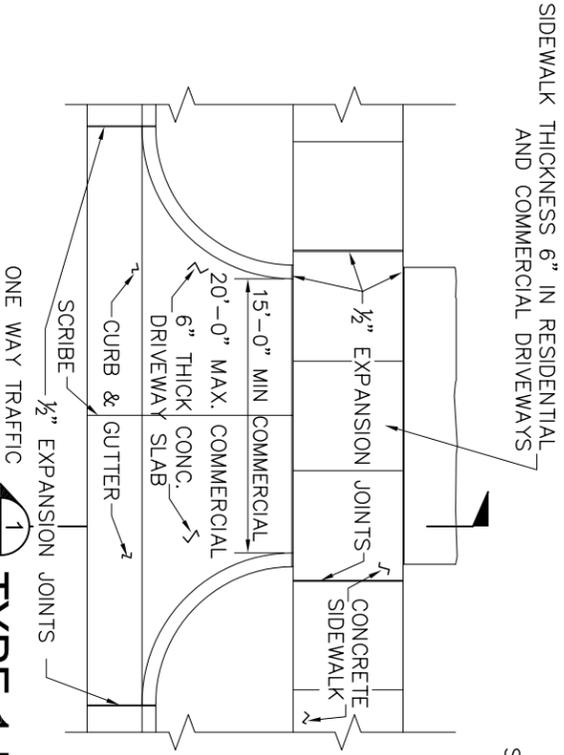
STANDARD STREET SECTION

STREET DESIGNATION	A	B	C	D	E	F	G	H
ARTERIAL	UDOT	UDOT	UDOT	UDOT	4.5'	4.0'	NOTE 2	NOTE 2
SECONDARY ARTERIAL	84'	65'	60'	2.5'	4.5'	4.0'	NOTE 2	NOTE 2
COLLECTOR	66'	47'	42'	2.5'	4.5'	4.0'	NOTE 2	NOTE 2
COLLECTOR	70'	48'	43'	2.5'	6.0'	4.0'	NOTE 2	NOTE 2
LOCAL - SITE APPROVAL	60'	41'	36'	2.5'	4.5'	4.0'	3"	10"
LOCAL - SITE APPROVAL	60'	38'	33'	2.5'	6.0'	4.0'	3"	10"

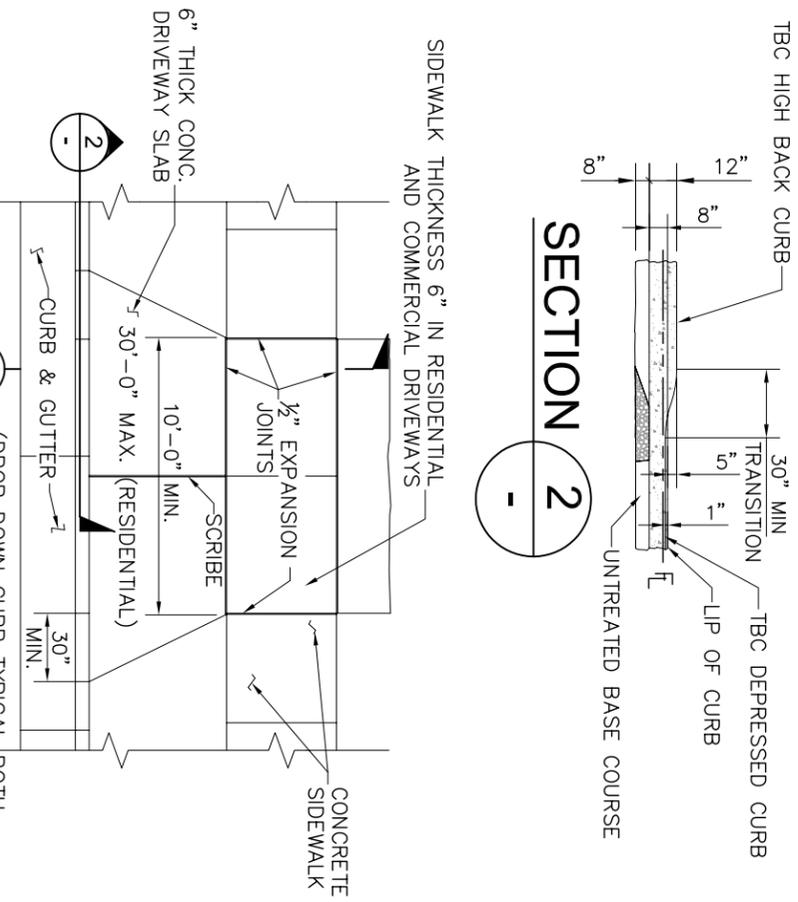
NOTE:
 SCRIBE SIDEWALK 1/2" DEPTH AT EACH 4'-0"
 EXPANSION JOINT AT EACH 32'-0"
 CURB & GUTTER EXPANSION JOINT AT EACH 50'
 CURB & GUTTER CONSTRUCTION JOINT AT EACH 10'



SECTION 1



SECTION 2



TYPE 2 DRIVEWAY APPROACH

PREFERRED STYLE FOR RESIDENTIAL DEVELOPMENT

TYPE 1 DRIVEWAY APPROACH

PREFERRED STYLE FOR COMMERCIAL DEVELOPMENT

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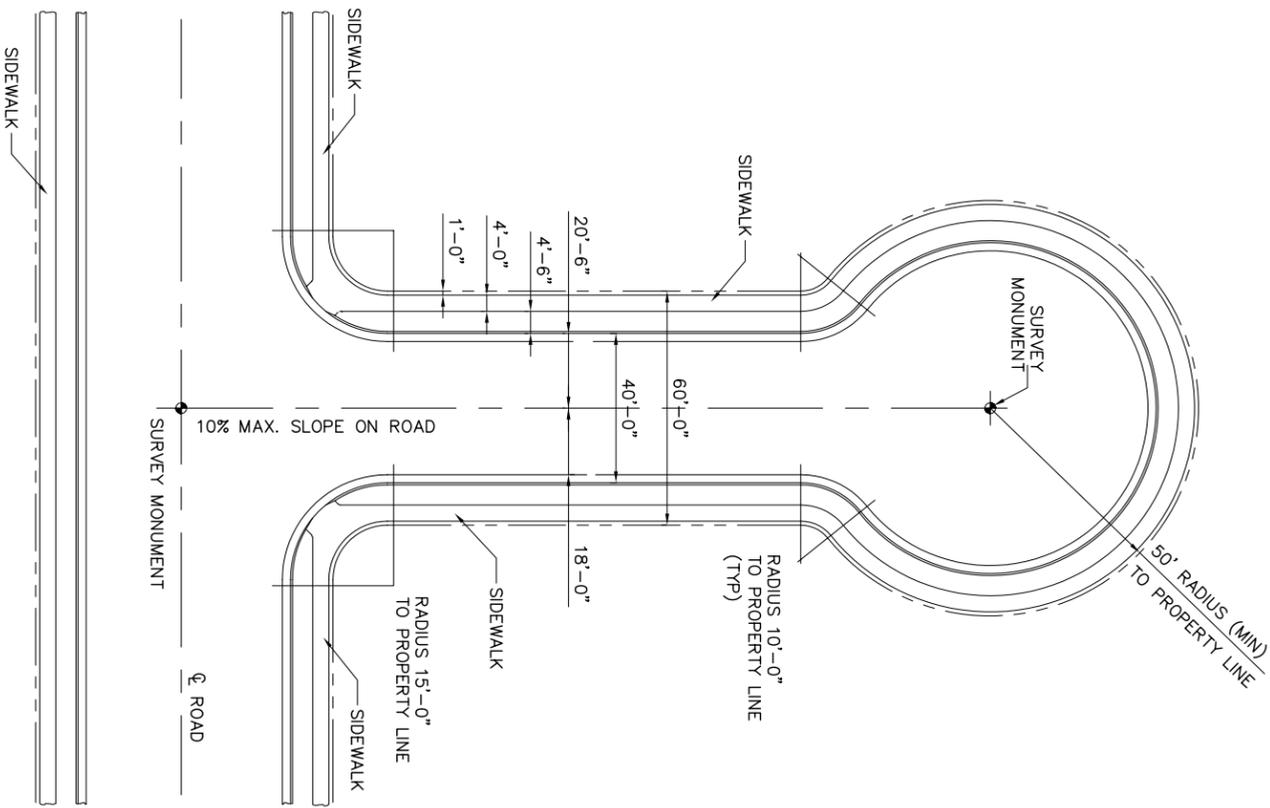
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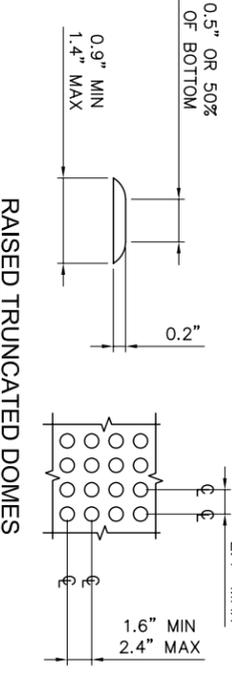
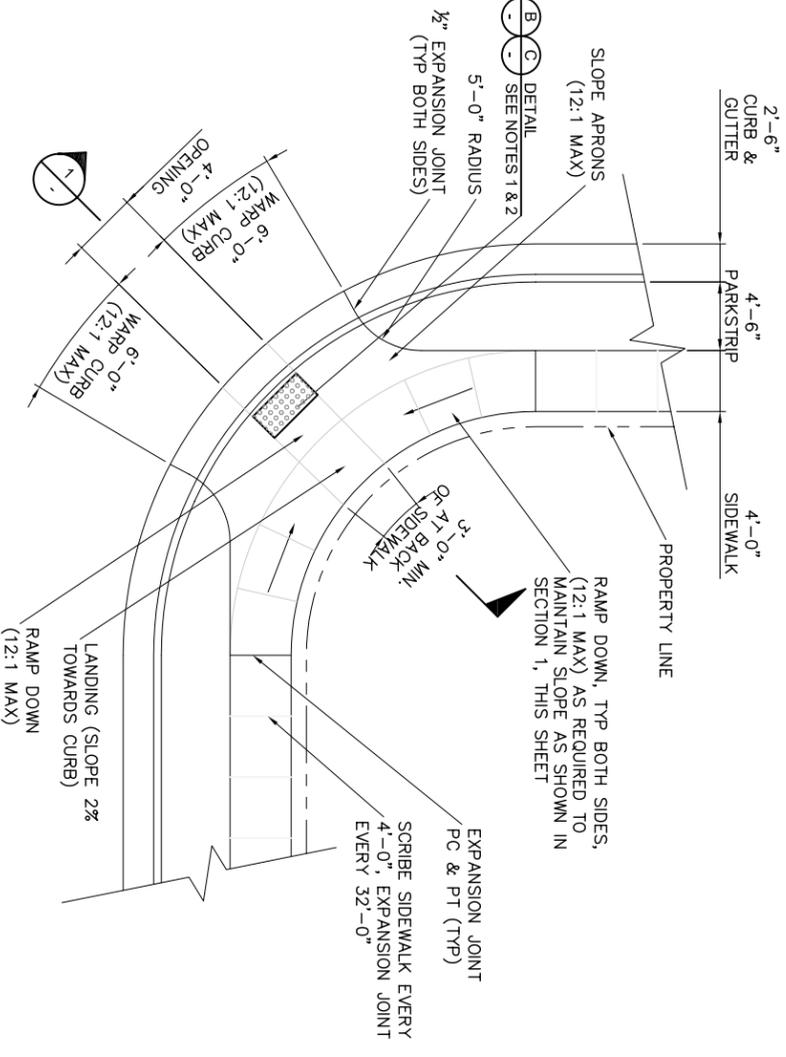
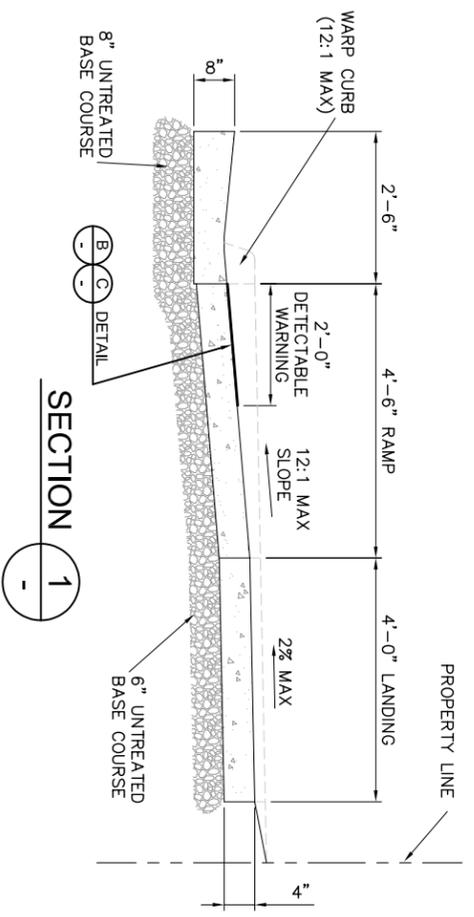
DEVELOPMENT STANDARDS
 CLINTON CITY CORPORATION
 STANDARD STREET SECTIONS
 AND DRIVEWAY DETAILS

- NOTES:
1. 400'-0" MAX. DISTANCE FROM CENTERLINE OF ADJOINING STREET TO RADIUS OF CUL-DE-SAC.
 2. CUL-DE-SAC SHOULD BE USED ONLY WHERE UNUSUAL CONDITIONS EXIST.
 3. MAX. GRADE IN CUL-DE-SAC AREA IS TO BE 2.5%.



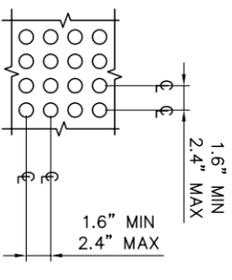
CUL-DE-SAC

SCALE N.T.S.



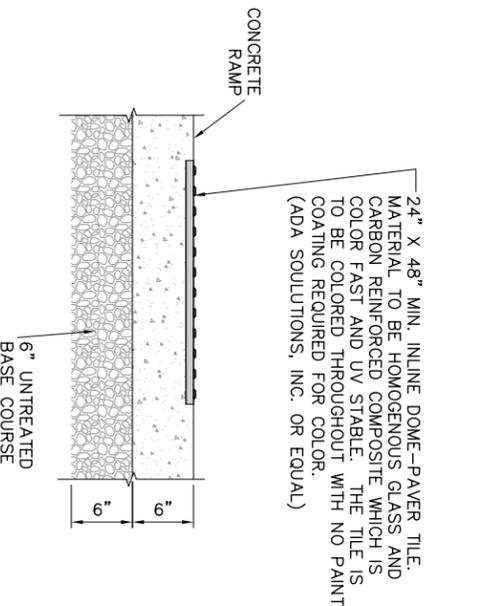
RAISED TRUNCATED DOMES

DETAIL B

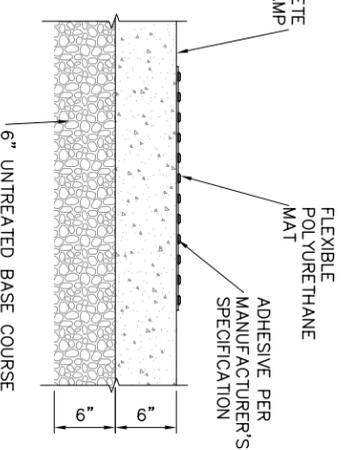


PLAN VIEW

DETAIL A



INLINE DOME-PAVER TILE



FLEXIBLE POLYURETHANE MAT (FOR RETROFIT OF EXISTING RAMPS ONLY)

DETECTABLE WARNING SYSTEM DETAIL

DETAIL C

- NOTES:
1. LOCATE RAISED TRUNCATED DOMES SO THAT THE EDGE NEAREST THE CURB LINE IS WITHIN 6 TO 8 INCHES FROM THE CURB LINE. PROVIDE 2-FOOT OF TRUNCATED DOME PATTERN AT THE LOWER END OF ALL CURB RAMPS EXTENDING THE FULL WIDTH OF THE CURB RAMP.
 2. CHANGES IN ELEVATION GREATER THAN 1/4" SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 2:1
 3. THE DETECTABLE WARNING SURFACE DOMES SHALL BE ORIENTED SUCH THAT THE ROWS ARE PARALLEL WITH THE DIRECTION OF PEDESTRIAN TRAVEL TO THE RAMP ON THE OPPOSITE SIDE OF THE STREET.
 4. THE STANDARD COLOR FOR THE DETECTABLE WARNING SHALL BE RED BRICK. WHEN THE EXISTING SIDEWALK COLOR IS NOT STANDARD CONCRETE, THE COLOR OF THE DETECTABLE WARNING SURFACE SHALL BE DETERMINED BY CLINTON CITY.
 5. WHEN A DETECTABLE WARNING SURFACE DOME IS CUT, THE REMAINING PORTION OF THE DOME SHALL BE BEVELED TO A MAXIMUM SLOPE OF 1:2.
 6. INSTALLATION SHALL BE DONE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.

CURB RAMP DETAIL

SCALE N.T.S.

DEVELOPMENT STANDARDS CLINTON CITY CORPORATION

TYPICAL CUL-DE-SAC AND WHEELCHAIR RAMP DETAILS

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REVISION			
NO.	DESCRIPTION	DATE	BY
1	REVD PER NEW ADA REQUIREMENTS	MAR. '04	JDM/BKW

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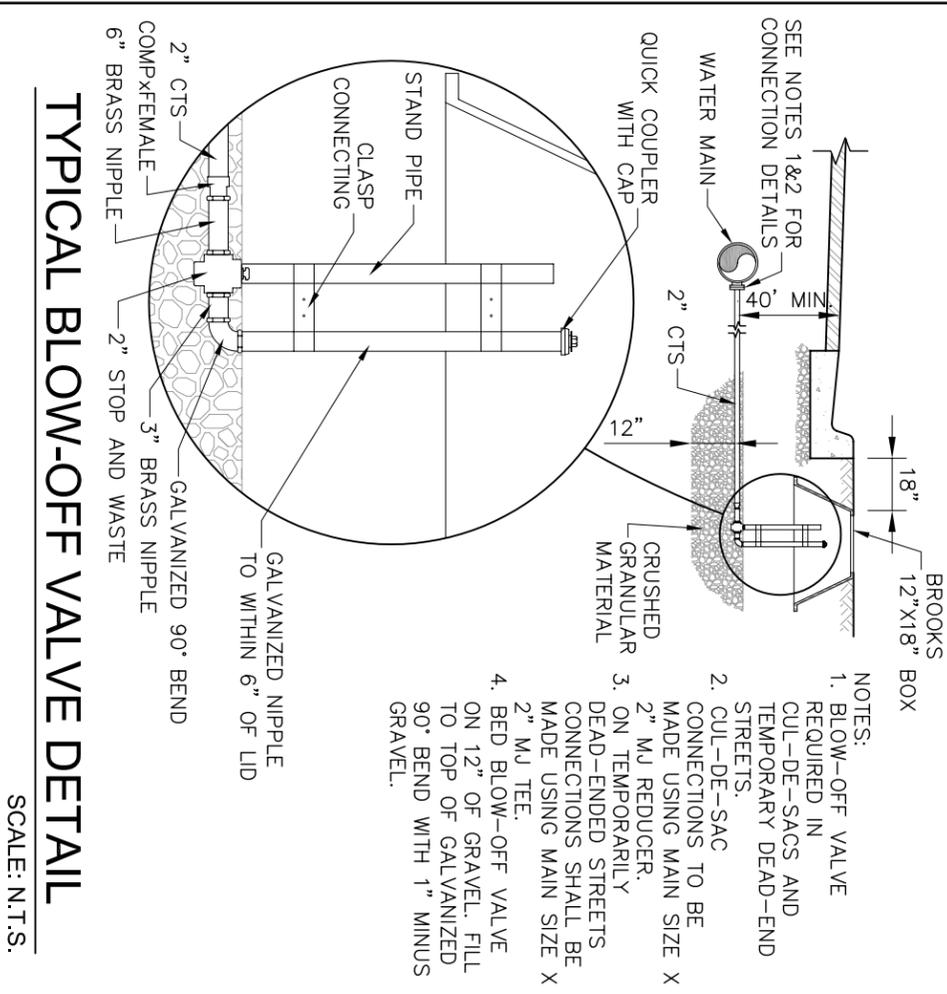
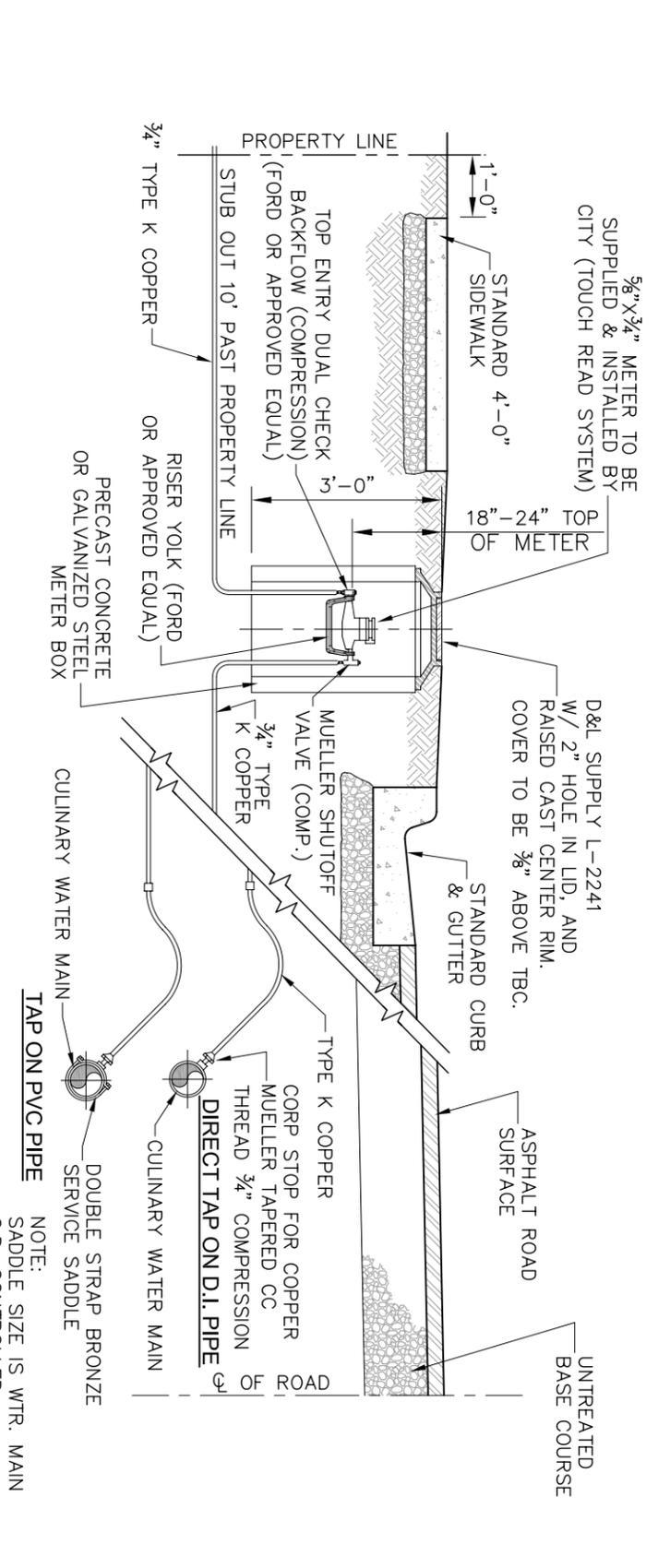


TITLE: CUL-DE-SAC, CURB RAMP
DRAWN BY: ECG
DESIGN BY: BMV
CHECKED BY: BMV
SCALE OF SHEET SHOWN
VEN. SCALE: NONE
DATE PLOTTED: 11/28/2007
DATE PLOTTED: 11/28/2007
SHEET
4
OF 15

SERVICE SIZE	METER BOX SIZE	TYPE OF MATERIAL FOR METER BOX	WATER METER	CONNECTION TYPE	BYPASS
3/4"	18" DIA.	CONCRETE	POLYETHYLENE	CITY COMPRESSION	NO
1 1/2"	24" DIA.	CORREGATED POLYETHYLENE	CITY COMPRESSION	NO	NO
2"	48" DIA.	CONCRETE	BY CITY	FLANGE	YES
3"	48" DIA.	CONCRETE	BY CITY	FLANGE	YES
4"	60" DIA.	CONCRETE	BY CITY	FLANGE	YES
4"	4'X6' BOX	CONCRETE	BY CITY	FLANGE	YES

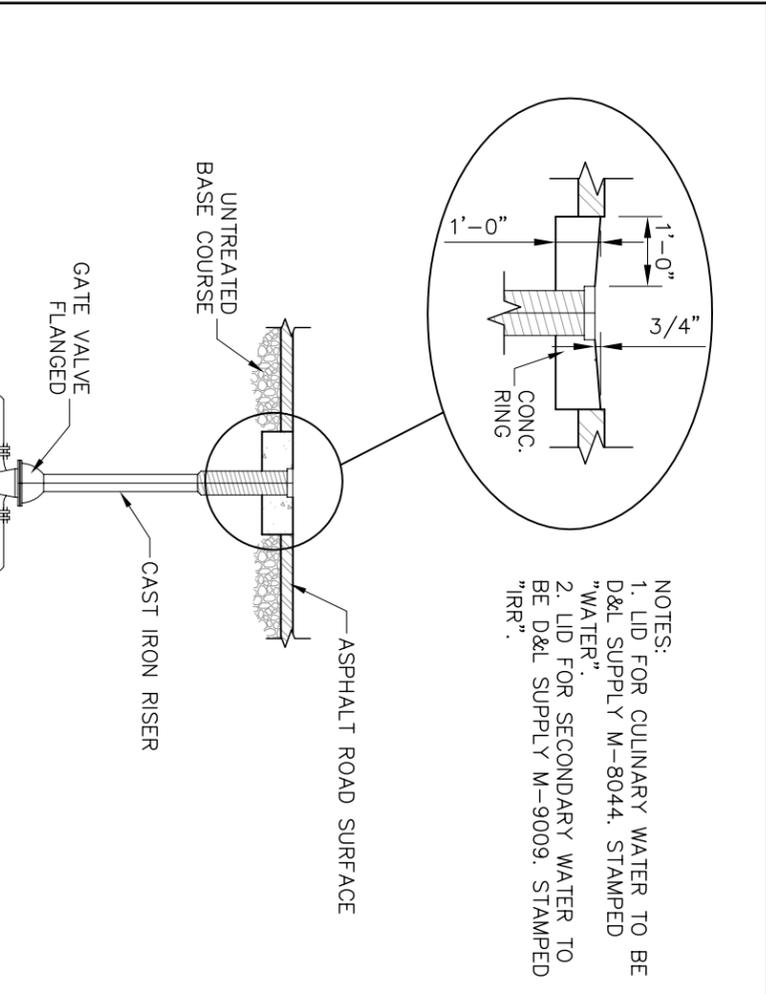
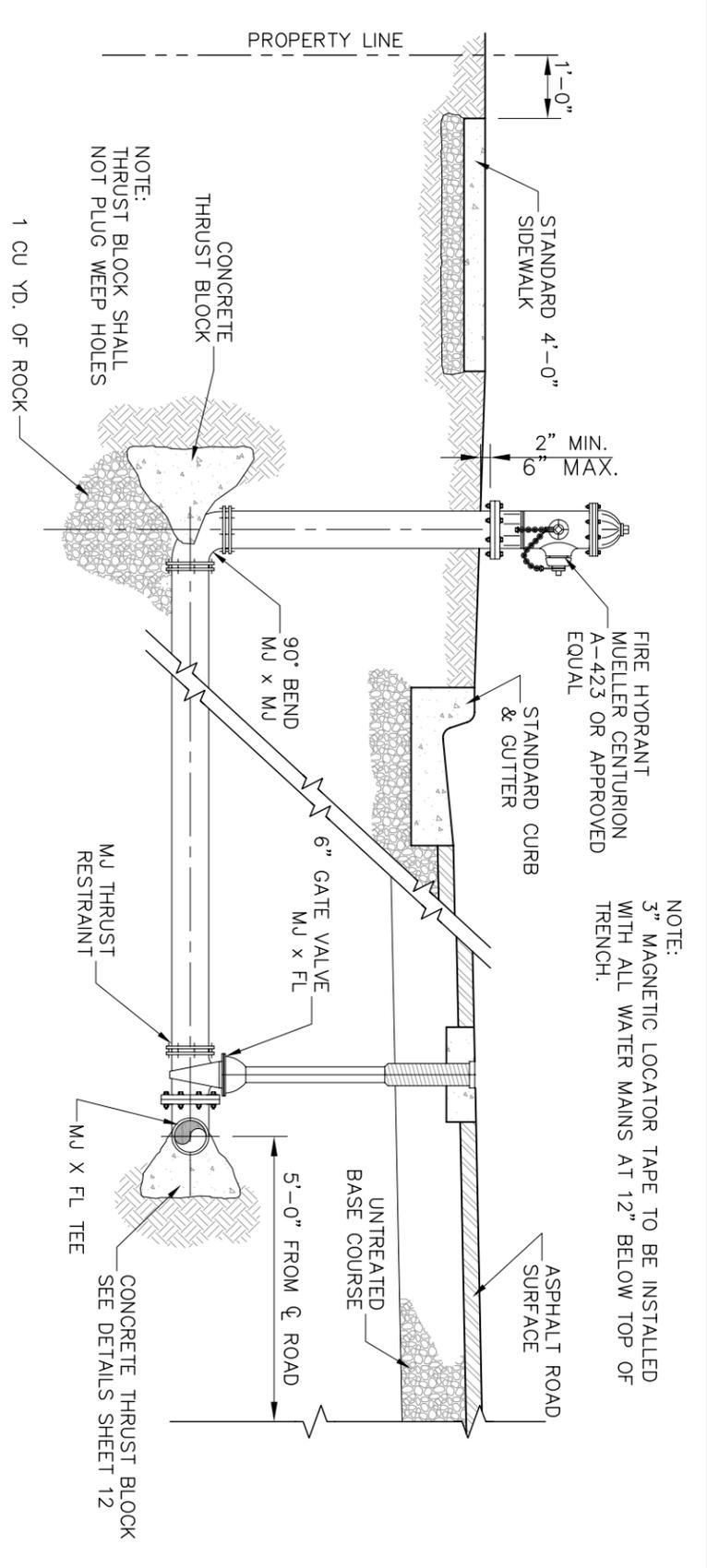
TYPICAL WATER CONNECTION

SCALE: N.T.S.



TYPICAL BLOW-OFF VALVE DETAIL
SCALE: N.T.S.

NOTES:
1. BLOW-OFF VALVE REQUIRED IN CUL-DE-SACS AND TEMPORARY DEAD-END STREETS.
2. CUL-DE-SAC CONNECTIONS TO BE MADE USING MAIN SIZE X 2" MJ REDUCER.
3. ON TEMPORARILY DEAD-ENDED STREETS CONNECTIONS SHALL BE MADE USING MAIN SIZE X 2" MJ TEE.
4. BED BLOW-OFF VALVE ON 12" OF GRAVEL. FILL TO TOP OF GALVANIZED 90° BEND WITH 1" MINUS GRAVEL.



TYPICAL WATER VALVE IN STREET
SCALE: N.T.S.

NOTES:
1. LID FOR CULINARY WATER TO BE D&L SUPPLY M-8044, STAMPED "WATER".
2. LID FOR SECONDARY WATER TO BE D&L SUPPLY M-9009, STAMPED "IRR".

TYPICAL FIRE HYDRANT CONNECTION

SCALE: N.T.S.

TYPICAL WATER VALVE IN STREET

SCALE: N.T.S.

DEVELOPMENT STANDARDS
CLINTON CITY CORPORATION

TYPICAL FIRE HYDRANT AND WATER SERVICE CONNECTION DETAILS

REVISION

NO.	DESCRIPTION	DATE
2	BLOW-OFF - 2" PVC TO 2" POLY	BKW/BKMAUG '04
1	FH - MOVED VALVE TO STREET	JDM/BKW/OCT '02

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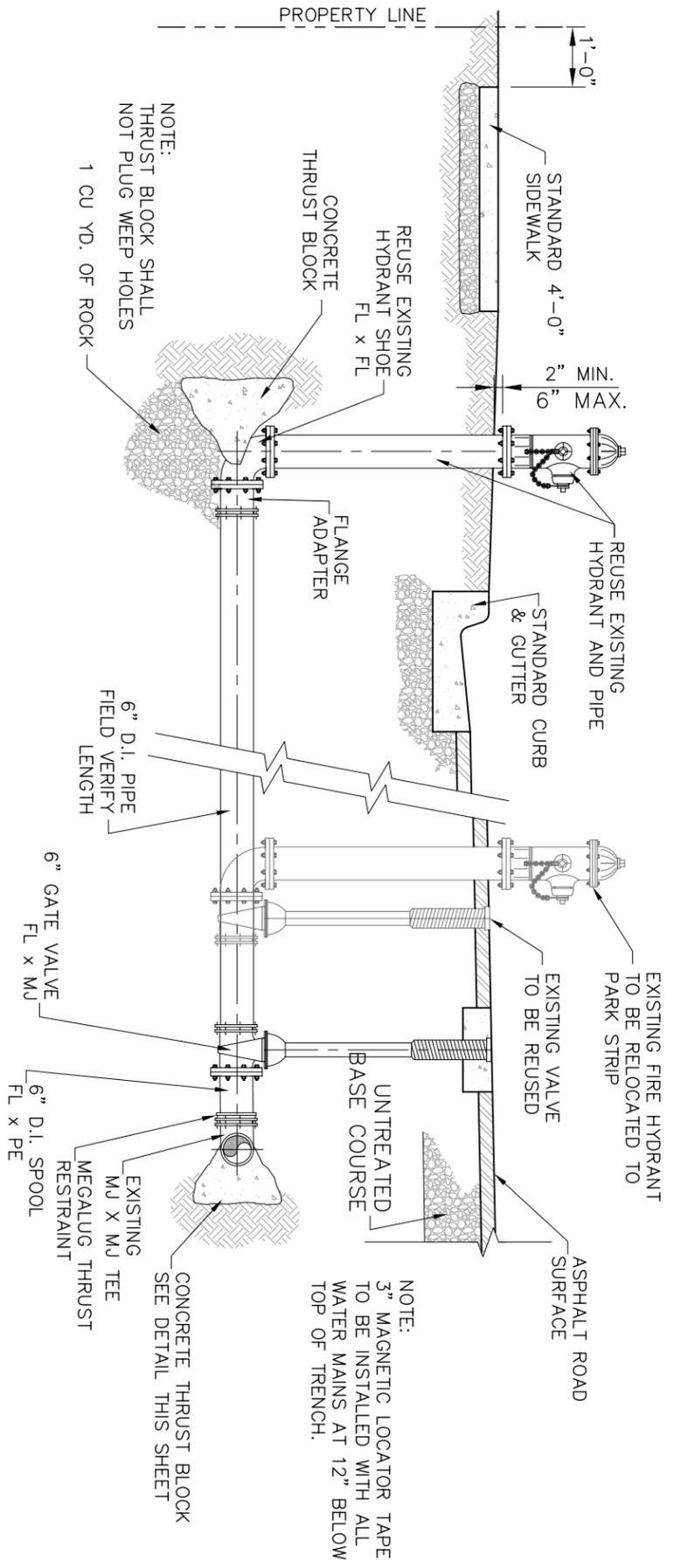
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FILE: 06-FIRE_HYD.WATER_CONN
DRAWN BY: ECG
DESIGN BY: BRW
CHECKED BY: BRW
SCALE OF SHEET SHOWN
VEN SCALE: NONE
LAST UPDATED: 11/27/2007
DATE PLOTTED: 11/28/2007

5 OF 15 SHEET



EXISTING FIRE HYDRANT RELOCATION DETAIL

SCALE: N.T.S.

NOTE:
3" MAGNETIC LOCATOR TAPE
TO BE INSTALLED WITH ALL
WATER MAINS AT 12" BELOW
TOP OF TRENCH.

NOTE:
THRUST BLOCK SHALL
NOT PLUG WEEP HOLES
1 CU YD. OF ROCK

DEVELOPMENT STANDARDS
CLINTON CITY CORPORATION

TYPICAL FIRE HYDRANT AND WATER
SERVICE CONNECTION DETAILS

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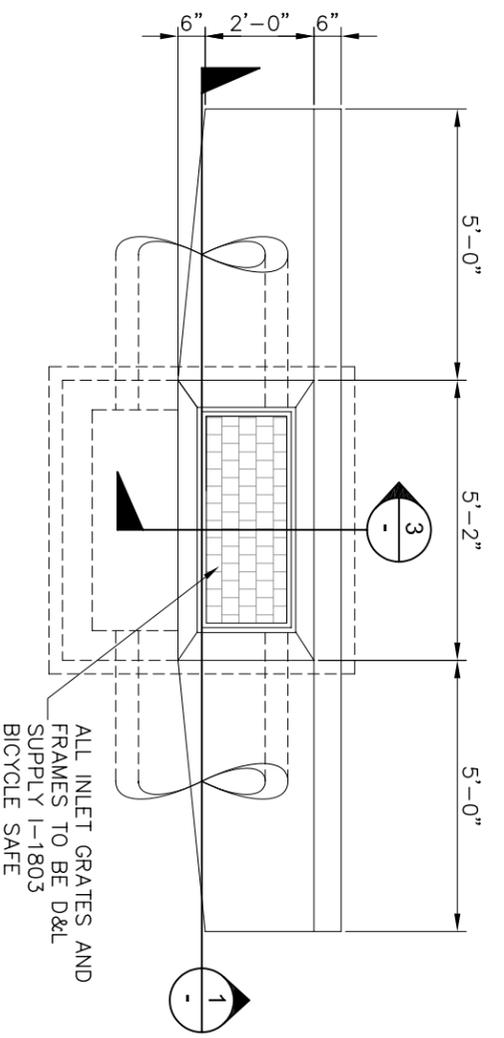
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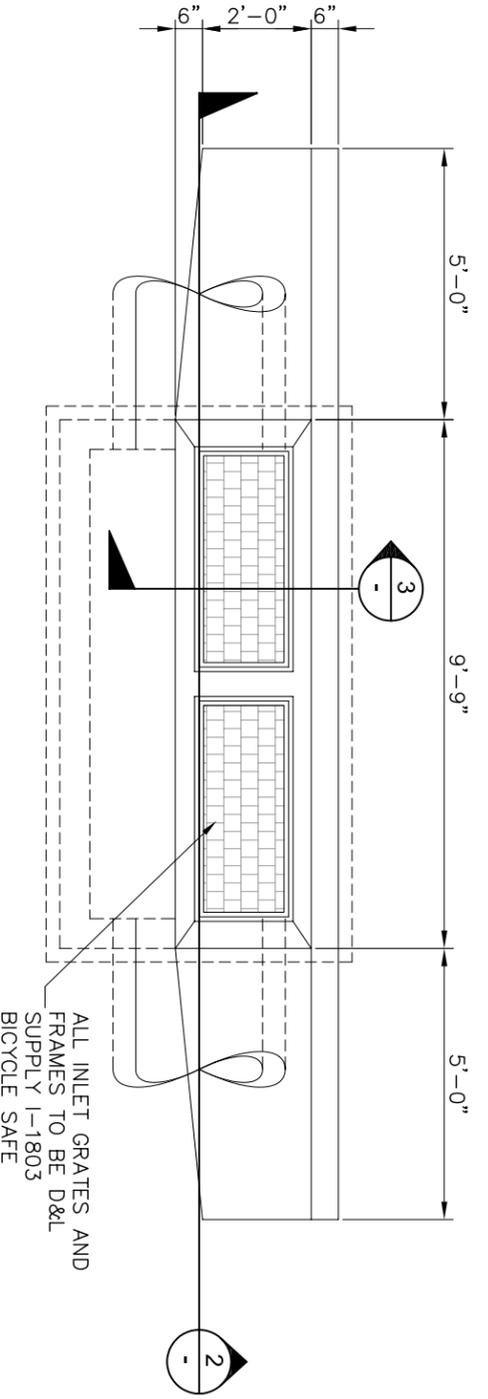
FILE:05-06 FIRE_HYD.WATER_CONN
DRAWN BY: ECG
DESIGN BY: BRW
CHECKED BY: BRW
SCALE OF SHEET SHOWN
VER SCALE: NONE
LAST UPDATED: 11/27/2007
DATE PLOTTED: 11/28/2007
SHEET
6
OF 15



ALL INLET GRATES AND FRAMES TO BE D&L SUPPLY I-1803 BICYCLE SAFE

SINGLE CATCH BASIN PLAN VIEW

SCALE: N.T.S.

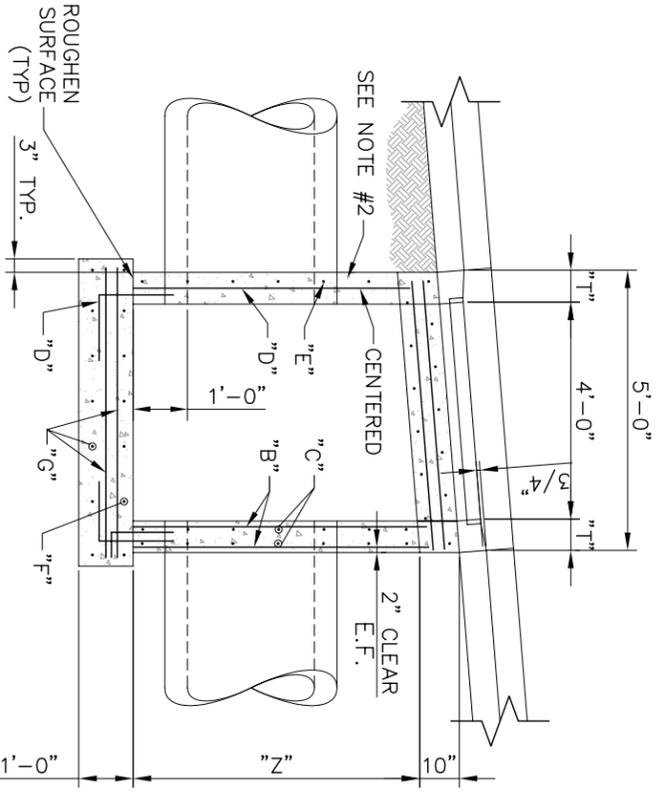


ALL INLET GRATES AND FRAMES TO BE D&L SUPPLY I-1803 BICYCLE SAFE

DOUBLE CATCH BASIN PLAN VIEW

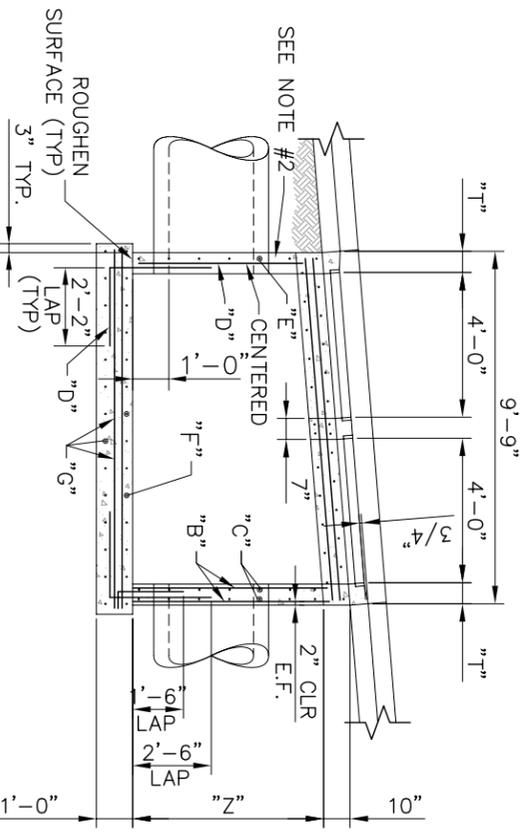
SCALE: N.T.S.

- NOTES:
1. REFER TO SHEET 7 FOR GENERAL NOTES.
 2. REFER TO SHEET 7 FOR DIMENSION TABLE AND NOTES.
 3. CATCH BASINS TO BE INSTALLED AT A MAXIMUM SPACING OF 500 FEET.
 4. OPEN FACE CATCH BASIN LOCATIONS WILL BE DETERMINED DURING PLAN APPROVAL.



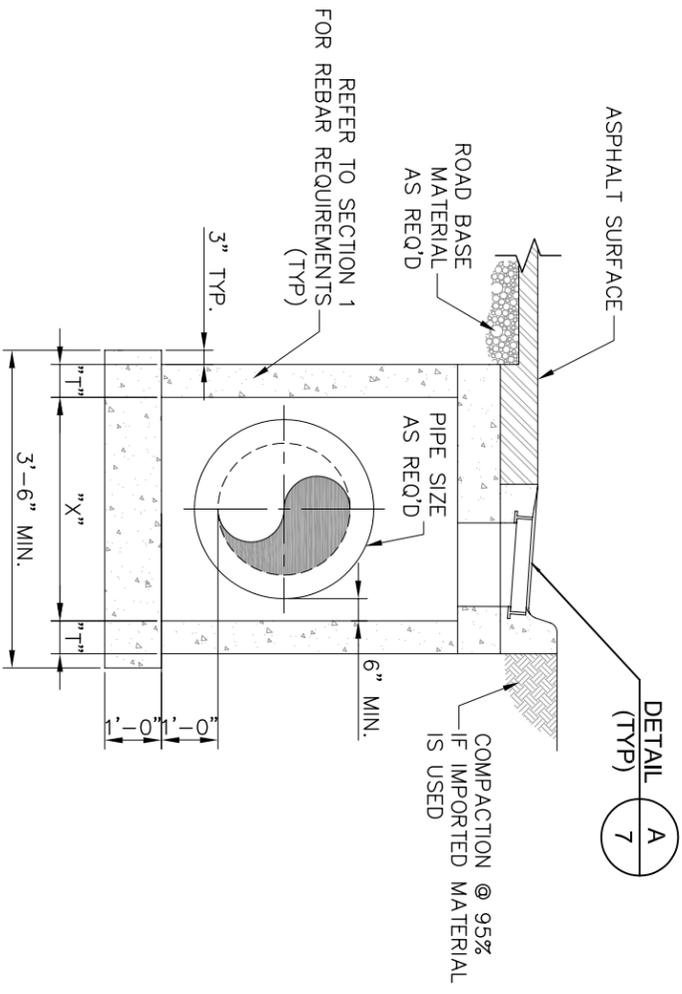
SECTION 1

SCALE: N.T.S.



SECTION 2

SCALE: N.T.S.



DETAIL A

(TYP) 7

REFER TO SECTION 1 FOR REBAR REQUIREMENTS (TYP)

ROAD BASE MATERIAL AS REQ'D

ASPHALT SURFACE

PIPE SIZE AS REQ'D

COMPACTION @ 95% IF IMPORTED MATERIAL IS USED

DEVELOPMENT STANDARDS CLINTON CITY CORPORATION

STANDARD CATCH BASINS

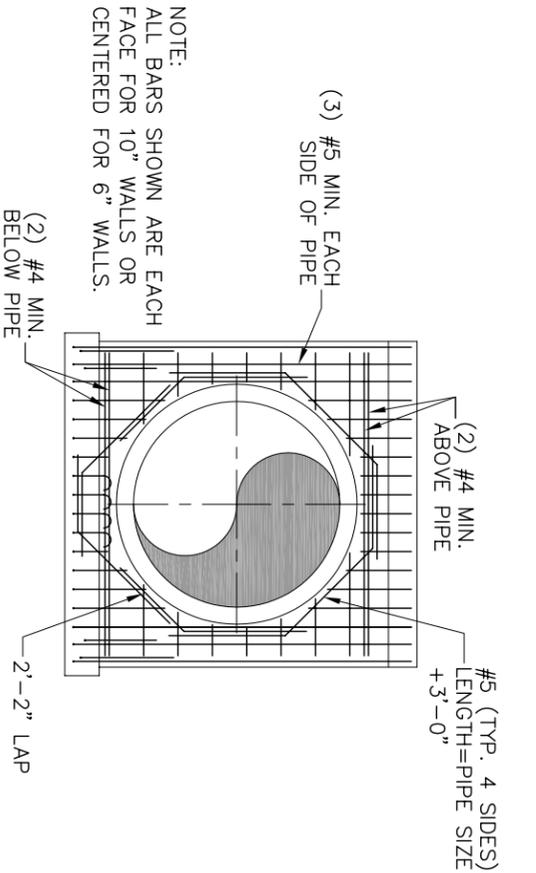
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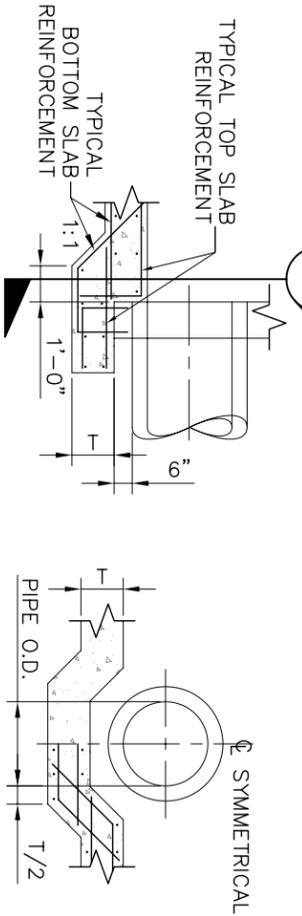


FILE: 07 CATCH BASIN_1
DRAWN BY: ECG
DESIGN BY: BRW
CHECKED BY: BRW
SCALE OF SHEET SHOWN
VPI SCALE: NONE
LAST UPDATED: 11/28/2007
DATE PLOTTED: 11/28/2007



REINFORCEMENT AT WALL PENETRATION

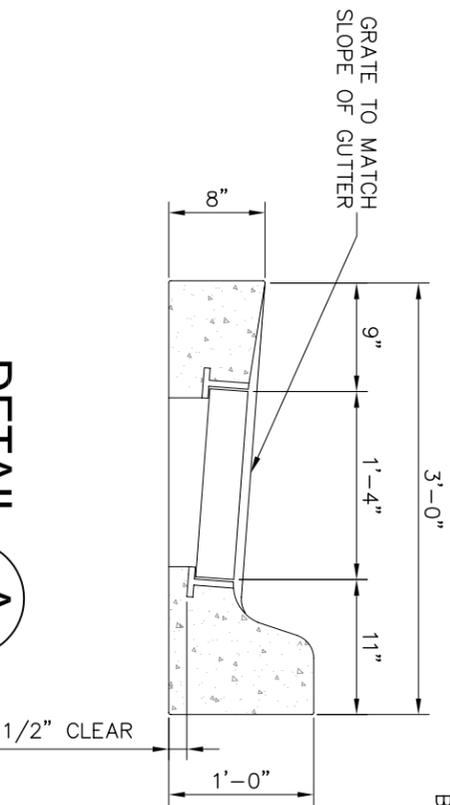
DETAIL B
SCALE: N.T.S.



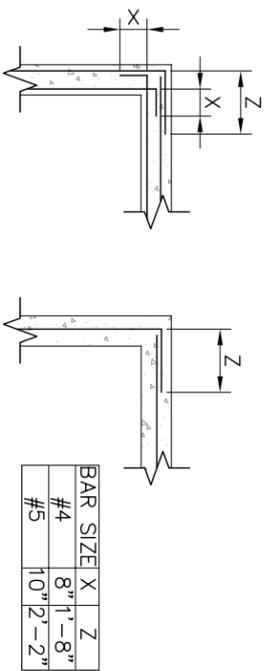
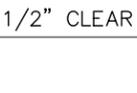
OPTIONAL FOOTING DETAIL AT WALL PIPE CONNECTION

SECTION THRU PIPE

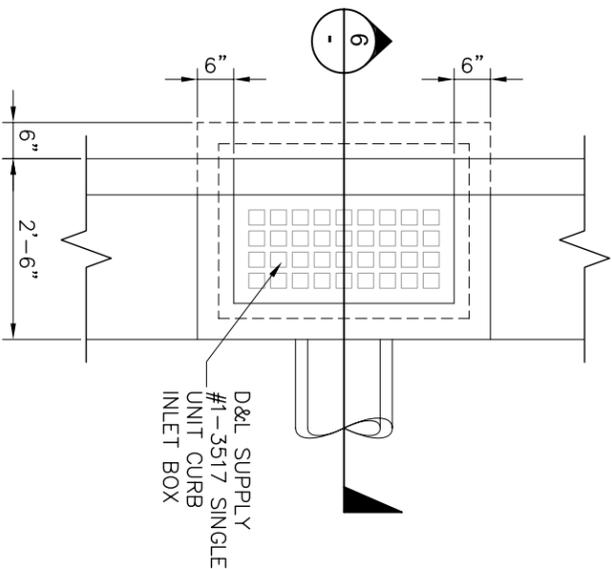
SECTION 4
SCALE: N.T.S.



DETAIL A
SCALE: N.T.S.



HORIZONTAL REINFORCEMENT AT WALL INTERSECTIONS
SCALE: N.T.S.



OPEN FACE CATCH BASIN PLAN

SCALE: N.T.S.

SECTION 6
SCALE: N.T.S.

USE LARGEST PIPE SIZE FOR THESE DIMENSIONS AND REBAR EXCEPT DIMENSION "y"

PIPE SIZE (IN.)	"x"	"z"	"t"	"A"	"B"	"C"	"D"	"E"	"F"	"G"
15	3'-0"	3'-3"	6"	#4 @ 12"	---	---	#5 @ 9"	#4 @ 12"	#4 @ 12"	#5 @ 9"
18	3'-0"	3'-3"	6"	#4 @ 12"	---	---	#5 @ 9"	#4 @ 12"	#4 @ 12"	#5 @ 9"
21	3'-3"	3'-6"	6"	#4 @ 12"	---	---	#5 @ 9"	#4 @ 12"	#4 @ 12"	#5 @ 9"
24	3'-6"	3'-9"	6"	#4 @ 12"	---	---	#5 @ 9"	#4 @ 12"	#4 @ 12"	#5 @ 9"
27	3'-9"	4'-0"	6"	#4 @ 12"	---	---	#5 @ 9"	#4 @ 12"	#4 @ 12"	#5 @ 9"
30	4'-2"	4'-5"	6"	#4 @ 12"	---	---	#5 @ 9"	#4 @ 12"	#4 @ 12"	#5 @ 9"
33	4'-5"	4'-8"	6"	#4 @ 12"	---	---	#5 @ 9"	#4 @ 12"	#4 @ 12"	#5 @ 9"
36	4'-8"	4'-11"	6"	#4 @ 12"	---	---	#5 @ 9"	#4 @ 12"	#4 @ 12"	#5 @ 9"
42	5'-3"	5'-6"	6"	#4 @ 12"	---	---	#5 @ 9"	#4 @ 12"	#4 @ 12"	#5 @ 9"
48	5'-10"	6'-1"	10"	#4 @ 12"	#5 @ 12"	#4 @ 12"	---	---	---	---
54	6'-5"	6'-8"	10"	#4 @ 12"	#5 @ 12"	#4 @ 12"	---	---	---	---
60	7'-0"	7'-3"	10"	#4 @ 12"	#5 @ 12"	#4 @ 12"	---	---	---	---
66	7'-7"	8'-10"	10"	#4 @ 12"	#5 @ 12"	#4 @ 12"	---	---	---	---
72	8'-2"	8'-5"	10"	#4 @ 12"	#5 @ 12"	#4 @ 12"	---	---	---	---

- NOTES:
1. THE "H" REBAR IS BASED ON THE SMALLER PIPE. WHEN THE SMALLER PIPE IS 15"-36" USE #4 @ 6". WHEN THE SMALLER PIPE IS 42"-60" USE #5 @ 6". WHEN THE SMALLER PIPE IS 66" OR 72" USE #6 @ 6".
 2. WALL THICKNESS IS BASED ON THE LARGEST OF THE PIPES. FOR 10" WALLS, USE 2 LAYERS OF STEEL. FOR 6" WALLS, USE A SINGLE LAYER OF STEEL.
 3. WHEN "Z" IS LESS THAN 4'-0", THE VERTICAL REBAR LAP MAY BE ELIMINATED AND DOWELS EXTENDED TO THE TOP OF THE WALL.

- GENERAL NOTES:
1. ALL STRUCTURAL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI IN 28 DAYS.
 2. REINFORCEMENT STEEL SHALL BE DEFORMED BARS CONFORMING IN QUALITY TO THE REQUIREMENTS OF ASTM DESIGNATION A-615, GRADE 60, INCLUDING SUPPLEMENTARY REQUIREMENTS (S1).
 3. ALL DETAILING, FABRICATION AND PLACING OF REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" ACI-315, LATEST EDITION.
 4. TOLERANCES II PLACING REINFORCEMENT SHALL BE:
 - ± 3/8" FOR MEMBERS WITH D < 8"
 - ± 1/2" FOR MEMBERS WITH D > 8"
 5. DOWELS, PIPES, WATER STOPS AND OTHER INSTALLED MATERIALS AND ACCESSORIES SHALL BE HELD SECURELY IN POSITION WHILE CONCRETE IS BEING PLACED.
 6. UNLESS OTHERWISE SHOWN, ASIDE FROM NORMAL ACCESSORIES USED TO HOLD REINFORCING BARS FIRMLY IN POSITION, THE FOLLOWING SHALL BE ADDED:
 - A) IN SLABS #5 RISER BARS @ 36" O.C. MAX TO SUPPORT TOP REINFORCING BARS.
 - B) IN WALLS WITH 2 CURTAINS #3 U OR Z SHAPE SPACES @ 6'-0" O.C. EACH WAY.
 7. METAL CLIPS OR SUPPORTS SHALL NOT BE PLACED IN CONTACT WITH THE FORMS OR THE SUBGRADE. CONCRETE BLOCKS (OR DOBBIES) SUPPORTING BARS ON SUBGRADE SHALL BE IN SUFFICIENT NUMBERS TO SUPPORT THE BARS WITHOUT SETTLEMENT, BUT IN NO CASE SHALL SUCH SUPPORT BE CONTINUOUS.
 8. DOWELS SHALL BE WIRED OR OTHERWISE HELD IN POSITION. THEY SHALL NOT BE SHOVED INTO FRESHLY PLACED CONCRETE.
 9. REINFORCED BARS AND ACCESSORIES SHALL NOT BE IN CONTACT WITH ANY PIPE, PIPE FLANGE, OR METAL PARTS EMBEDDED IN CONCRETE. A MINIMUM OF 2" CLEARANCE SHALL BE PROVIDED AT ALL TIMES.
 10. STRUCTURES SHALL BE BACKFILLED WITH GRANULAR SOIL, COMPACTED TO 96% ACCORDING TO ASTM-81557.
 11. ALL CONSTRUCTION JOINTS SHALL BE ROUGHED AND CLEANED AND FREE OF LAITANCE.
 12. STRUCTURES HAVE BEEN DESIGNED FOR THE FOLLOWING: IF CONDITIONS ARE EXCEEDED THE ENGINEER SHALL BE NOTIFIED.
 - A) AASHTO HS-20 TRUCK LOAD.
 - B) 1'-6" MAX. SOIL ABOVE THE ROOF OF THE STRUCTURE.
 - C) GROUND WATER TO TOP OF STRUCTURE.
 - D) "AT REST" LATERAL SOIL PRESSURE OF 60 PCF FOR DRY SOIL CONDITIONS AND 92.4 PCF WHEN GROUND WATER IS PRESENT.

DEVELOPMENT STANDARDS
CLINTON CITY CORPORATION

STANDARD CATCH BASINS

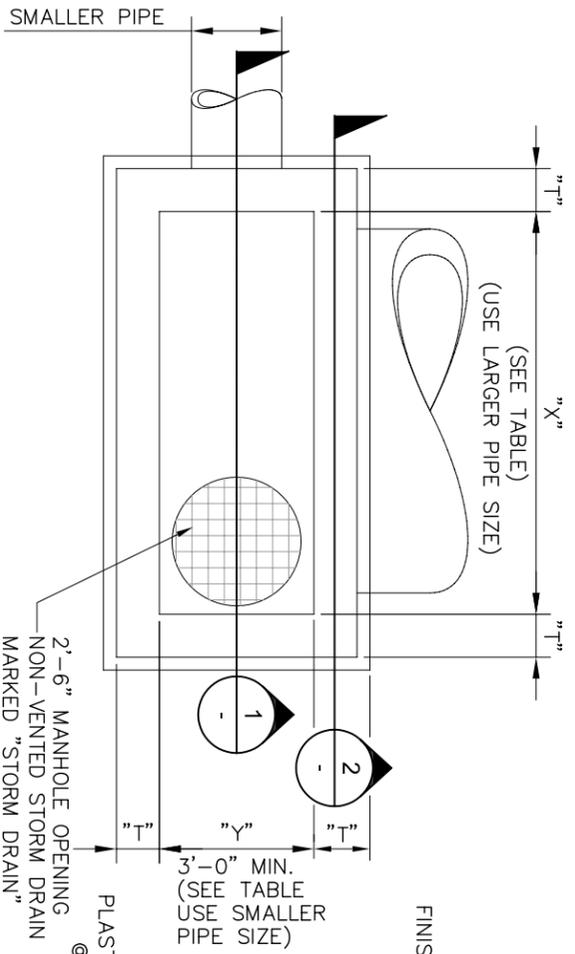
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Kaysville, Utah 84037

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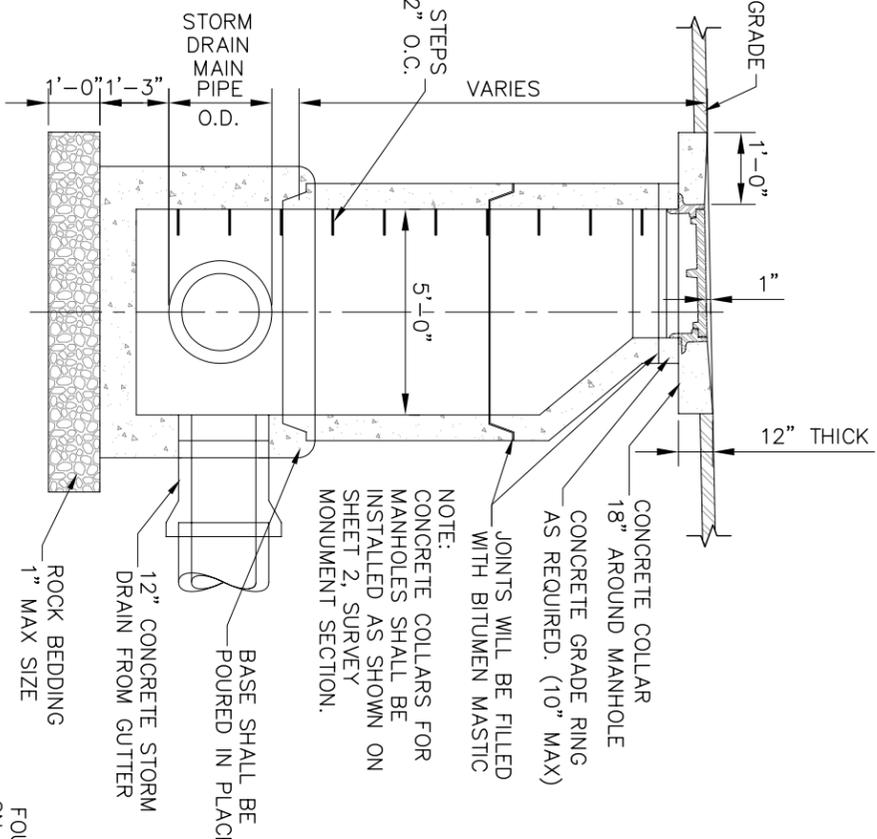
STANDARD CLEANOUT PLAN VIEW

SCALE: N.T.S. (TYPE 1)

MANHOLE WALL AND CONE SECTION SHALL CONFORM TO ASTM C 478

LIFT HOLES SHALL BE FILLED WITH GROUT

IF MANHOLES ARE TOO SHALLOW FOR CONE SECTION, USE FLAT CONCRETE LID INSTEAD



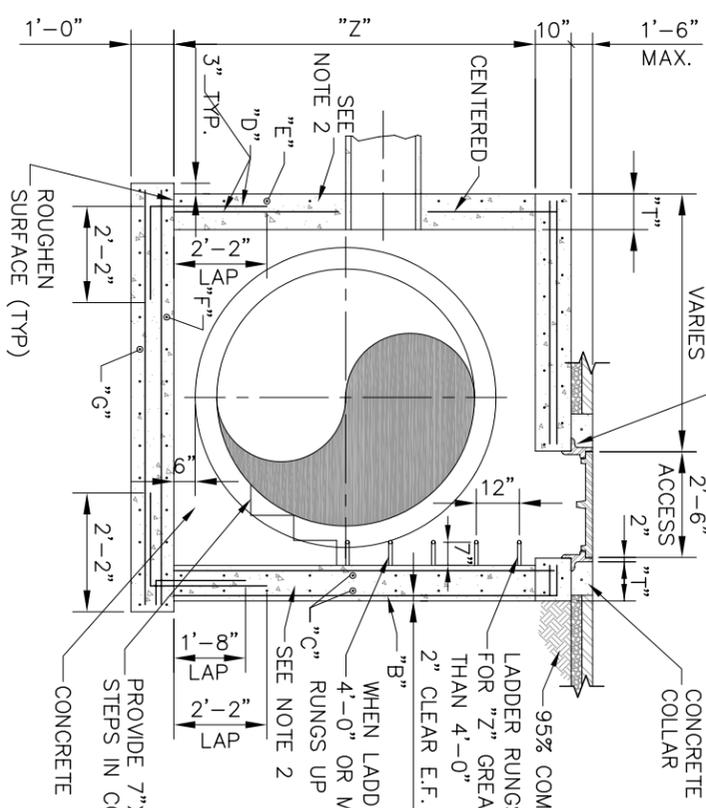
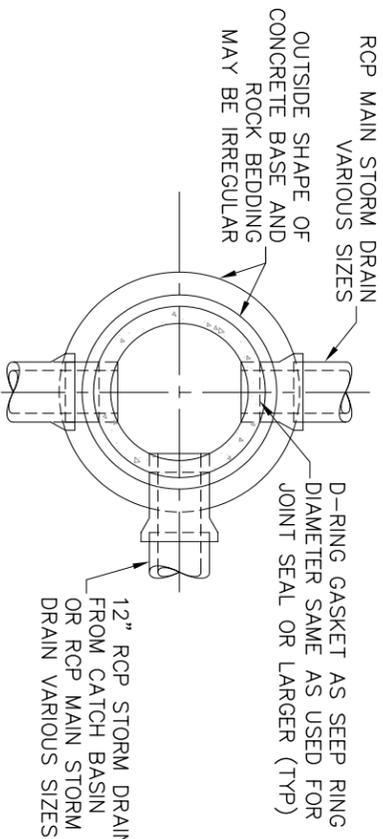
TYPICAL MANHOLE SECTION

SCALE: N.T.S.

NOTE: CONCRETE COLLARS FOR MANHOLES SHALL BE INSTALLED AS SHOWN ON SHEET 2, SURVEY MONUMENT SECTION.

MANHOLE PLAN VIEW BELOW CONE

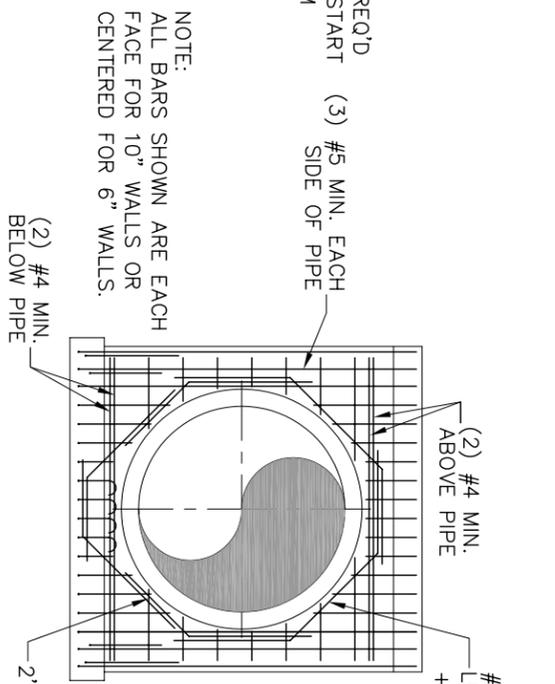
SCALE: N.T.S.



SECTION 1

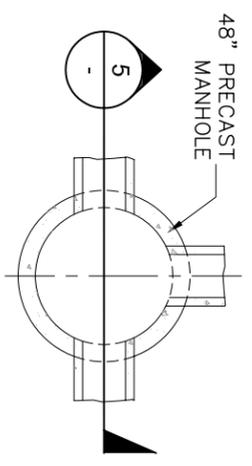
SCALE: N.T.S.

NOTES:
1. REFER TO SHEET 7 FOR GENERAL NOTES.
2. REFER TO SHEET 7 FOR DIMENSION TABLE AND NOTES.



SECTION 2

SCALE: N.T.S.



SECTION 5

SCALE: N.T.S.

NOTE: CONCRETE COLLARS FOR MANHOLES SHALL BE INSTALLED AS SHOWN ON SHEET 2, SURVEY MONUMENT SECTION.

STORM DRAIN MANHOLE PLAN VIEW

SCALE: N.T.S. (FLAT LID)

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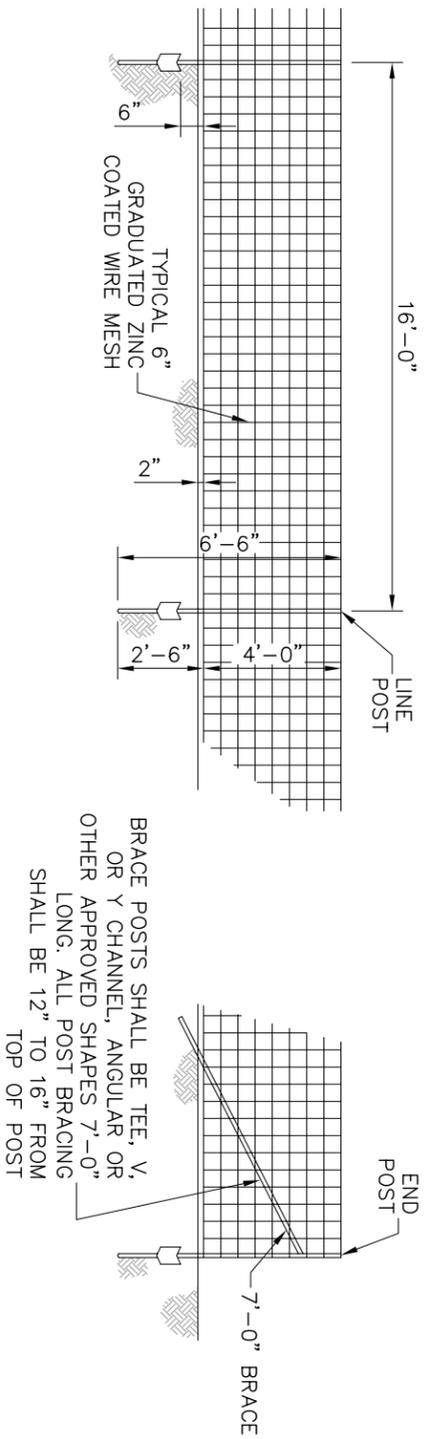
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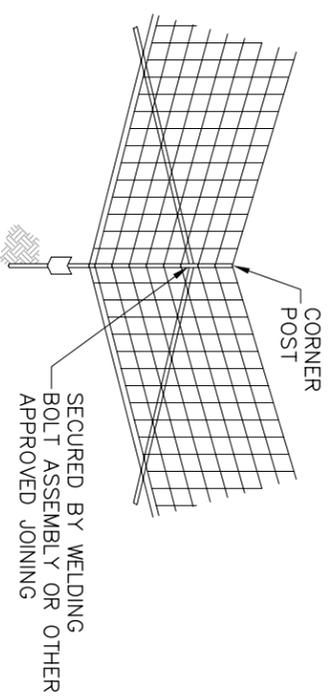
STANDARD STORM DRAIN MANHOLE

FILED BY: SDMH
DRAWN BY: EGG
DESIGN BY: BRW
CHECKED BY: BRW
SCALE OF SHEET SHOWN
VER. SCALE: NONE
LAST UPDATED: 11/28/2007
DATE PLOTTED: 11/28/2007
SHEET 9 OF 15



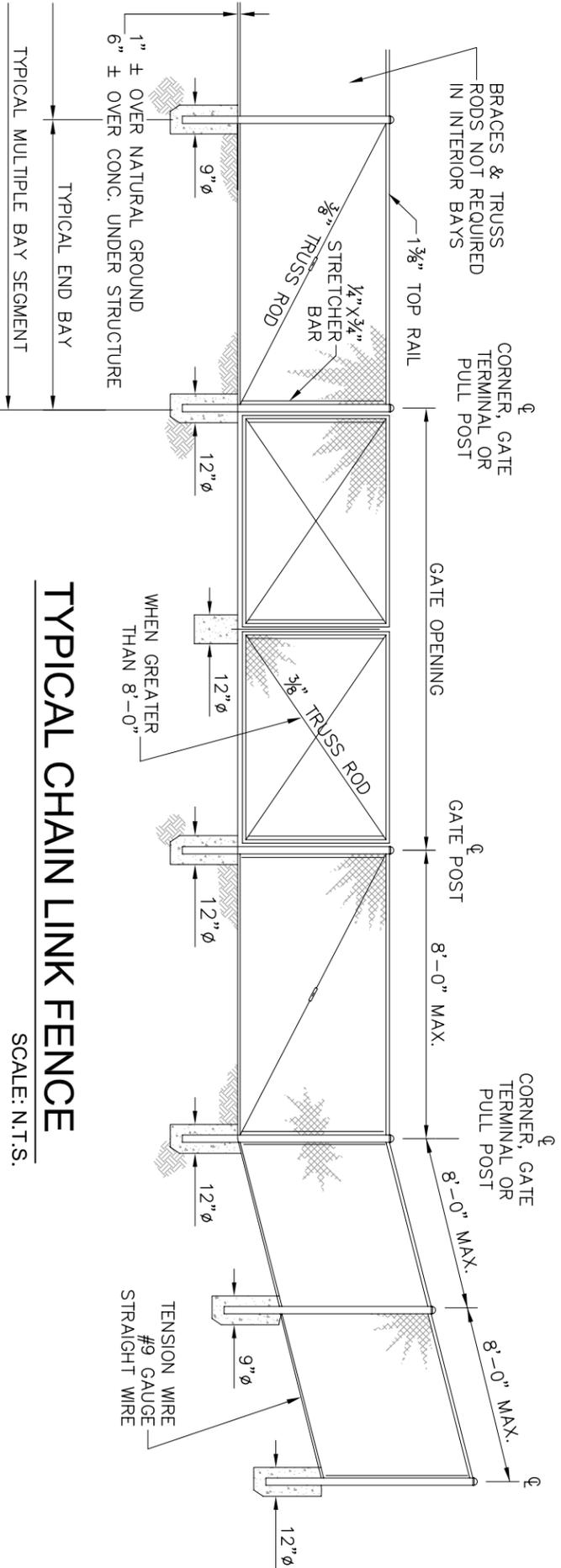
TYPE "D" CONSTRUCTION FENCE

SCALE: N.T.S.



TYPICAL CORNER POST

SCALE: N.T.S.



TYPICAL CHAIN LINK FENCE

SCALE: N.T.S.

- NOTES:
1. ALL FABRIC SHALL BE 6'-0" HIGH CHAIN LINK OF 2" GALVANIZED MESH OF 11 GAUGE.
 2. ALL STEEL PIPE MEMBERS SHALL CONFORM TO THE REQUIREMENTS OF A.S.T.M. DESIGNATION A-120, SCHEDULE 40, HOT DIPPED ZINC COATED STEEL PIPE.
 3. ALL POSTS SHALL BE SET IN CONCRETE AND SHALL BE TOPPED WITH BALL TYPED OR OTHER APPROVED ORNAMENT.
 4. ALL END, CORNER, OR PULL POST SHALL BE 8'-0" IN LENGTH WITH A MINIMUM DIAMETER OF 2 3/8". ALL LINE POSTS SHALL BE 8'-0" IN LENGTH WITH A MINIMUM DIAMETER OF 1 7/8".
 5. PRIVACY SLATS SHALL BE OF FLAT, TUBULAR CONSTRUCTION MANUFACTURED FROM VIRGIN POLYETHYLENE CONTAINING AN ULTRAVIOLET INHIBITOR. THE SLATS SHALL BE RETAINED BY A RETAINING CHANNEL AT THE BOTTOM OF THE FENCE FABRIC.

GATES

GATE POSTS AND GATE FRAMES	
HEIGHT	GATE OPENING
6 FEET	SINGLE TO 4'-0" OR DOUBLE TO 8'-0"
	SINGLE OVER 4'-0" TO 12'-0" OR DOUBLE OVER 8'-0" TO 24'-0"
	SINGLE OVER 12'-0" TO 18'-0" OR DOUBLE OVER 24'-0" TO 36'-0"
	SINGLE OVER 18'-0" OR DOUBLE OVER 36'-0"
GATE POST SCH. 40	GATE FRAME 16 GA.
2 3/8"	1 3/8"
2 7/8"	1 5/8"
4"	1 5/8"
8 5/8"	1 7/8"

SIZE OF POSTS

HEIGHT OF FABRIC	DEPTH OF POST	LENGTH OF END, CORNER OR PULL POSTS	LENGTH OF LINE POSTS	END, CORNER AND PULL PIPE OPTION (MIN. 300'-0")	LINE POST (MIN. SIZE) PIPE OPTION	GATE POSTS
6'-0"	2'-0"+	8'-0"+	8'-0"	2 3/8" 16 GA.	1 7/8" 16 GA. 8'-0" O.C.	SEE GATE TABLE

DEVELOPMENT STANDARDS
CLINTON CITY CORPORATION

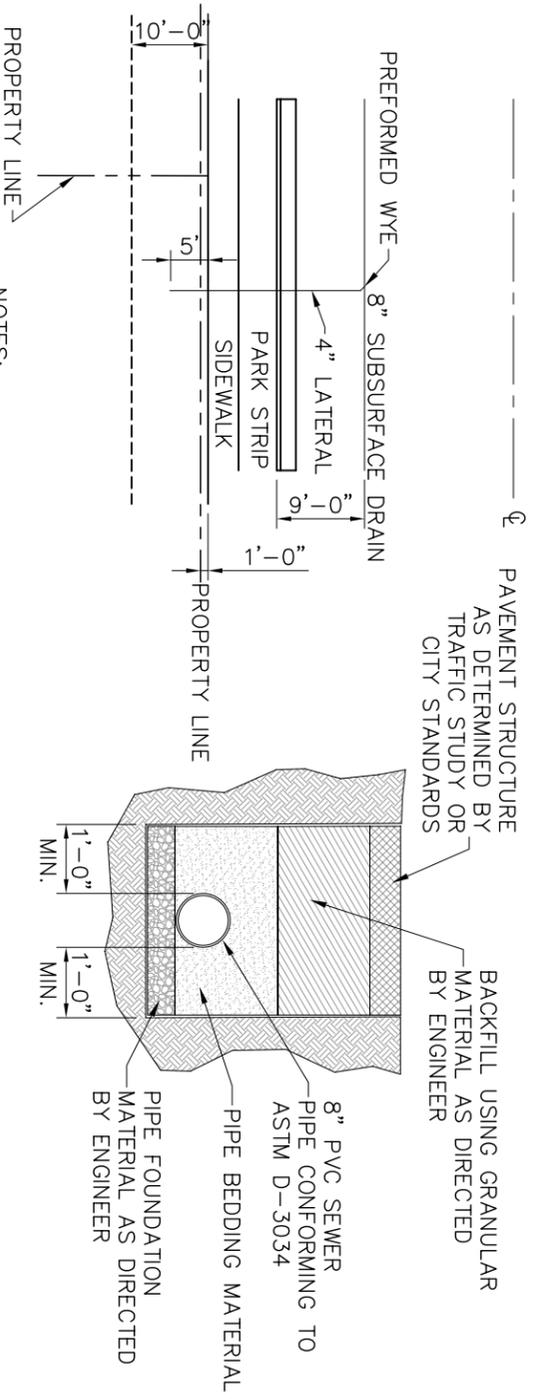
FENCING DETAILS

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NO.	DESCRIPTION	BY	DATE

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- NOTES:
1. CONTRACTOR SHALL USE SINGLE OR DOUBLE PULL BOX TO PROTECT WORKERS AND STABILIZE TRENCH SIDES.
 2. ALL CONNECTIONS SHALL BE MADE USING PREFORMED FITTINGS CONFORMING TO ASTM D-3034.
 3. CONTRACTOR SHALL PROVIDE A CLEANOUT WITHIN 5'-0" OF HOUSE.
 4. LAND DRAIN LATERALS TO BE GREEN PVC TO DIFFERENTIATE FROM SANITARY SEWER LATERALS. MARK END WITH 2X4, PAINTED GREEN.

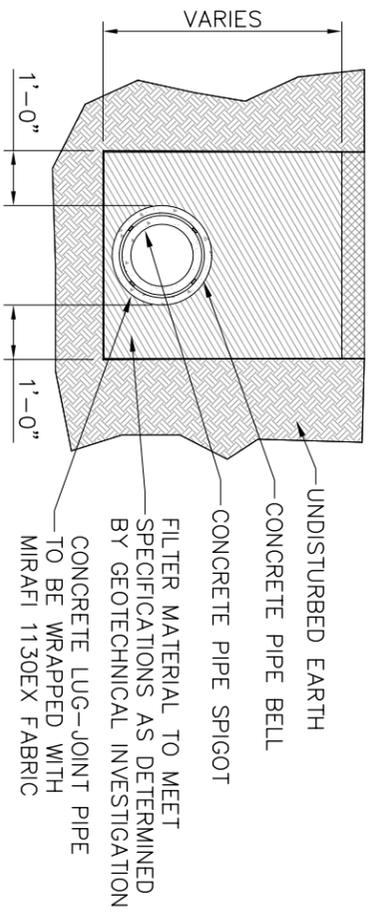
TIGHT JOINT SUBSURFACE DRAIN DETAIL

SCALE: N.T.S.

BACKFILL USING GRANULAR FILTER MATERIAL TO MAXIMUM GROUNDWATER ELEVATION AS DIRECTED BY THE ENGINEER.

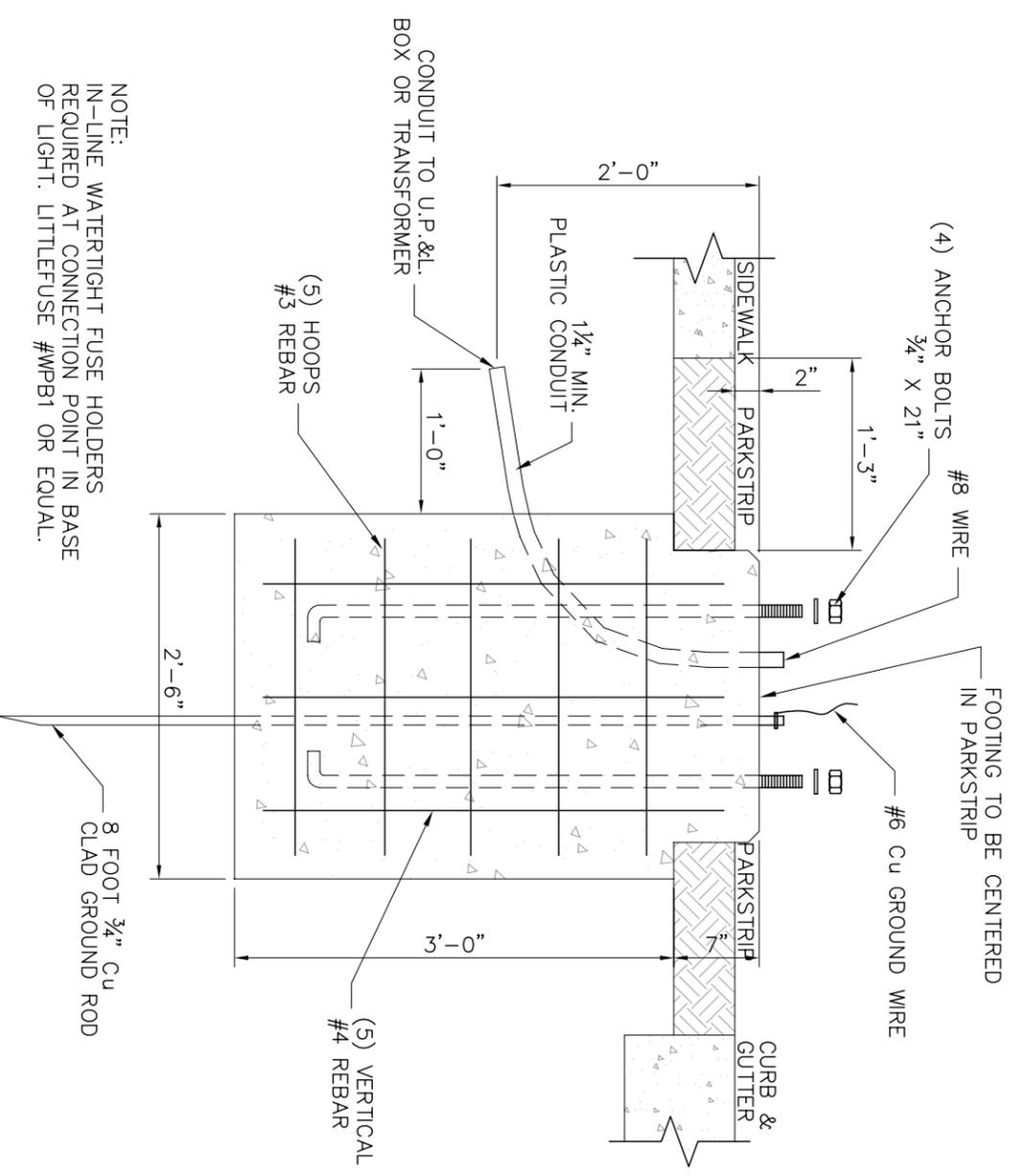
NOTES:

1. CONTRACTOR SHALL USE SINGLE OR DOUBLE PULL BOX TO PROTECT WORKERS AND STABILIZE TRENCH SIDES.
2. DEWATERING SHALL NOT ALLOW PIPING OF FINES.



OPEN JOINT SUBSURFACE DRAIN DETAIL

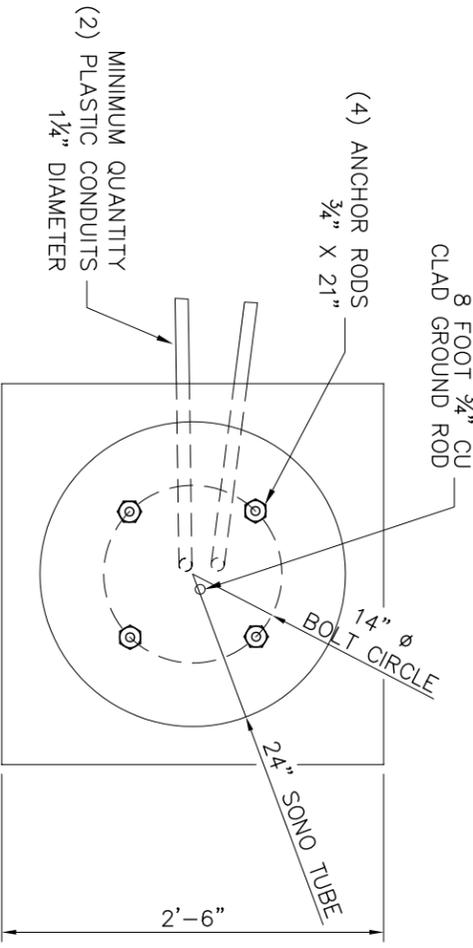
SCALE: N.T.S. ONLY WHEN APPROVED BY CLINTON CITY



NOTE:
IN-LINE WATERTIGHT FUSE HOLDERS REQUIRED AT CONNECTION POINT IN BASE OF LIGHT. LITTLEFUSE #WPB1 OR EQUAL.

LIGHT PEDESTAL DETAIL

SCALE: N.T.S.



PLAN VIEW

SCALE: N.T.S.

NOTE:
GROUND ROD AND PLASTIC CONDUITS MUST BE LOCATED WITHIN A 3" RADIUS FROM THE CENTER OF BOLT CIRCLE.

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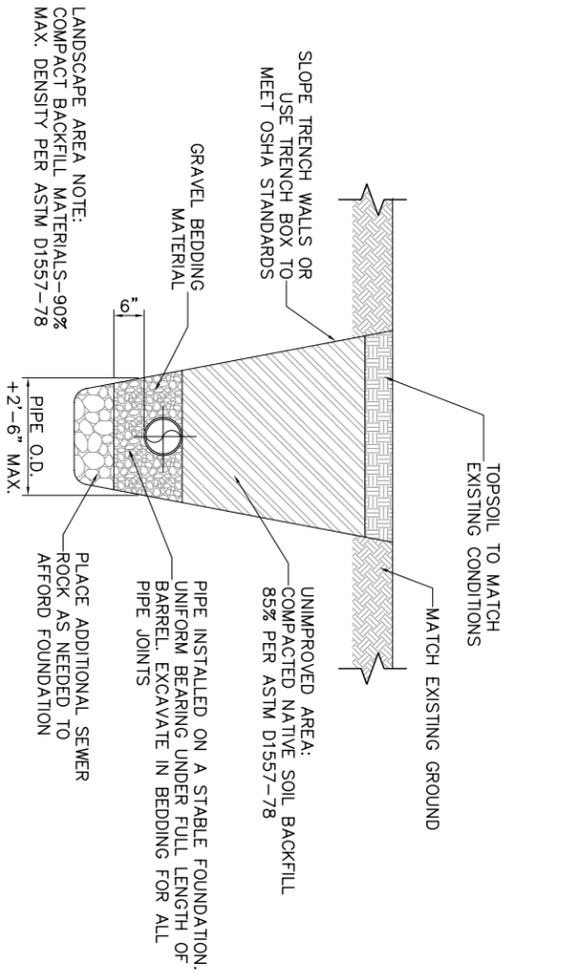
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DEVELOPMENT STANDARDS
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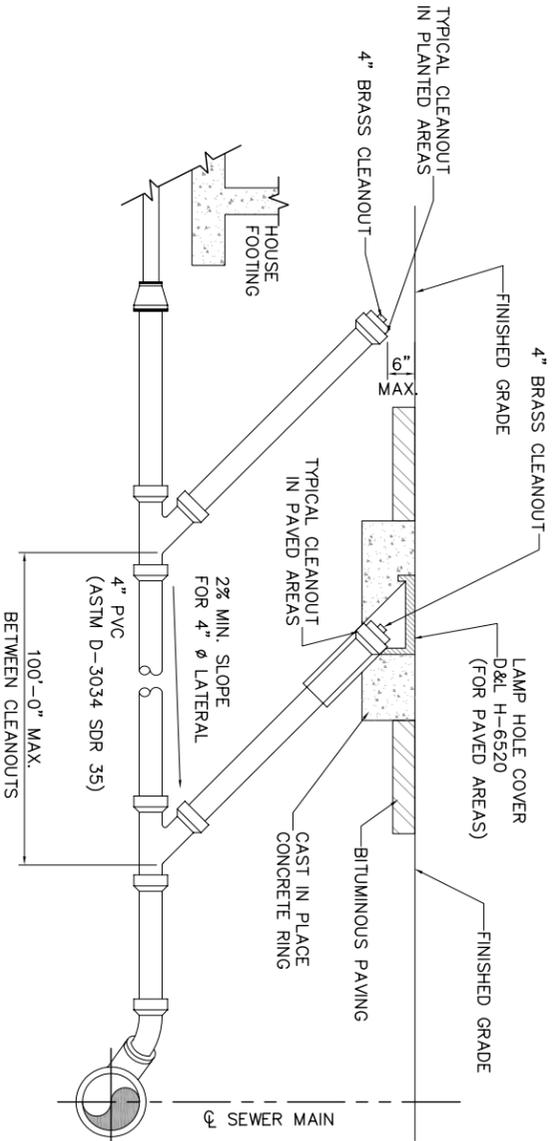
LAND DRAIN AND LIGHT PEDISTAL DETAILS

FILED: 11/12/2007
DRAWN BY: ECG
DESIGN BY: BRW
CHECKED BY: BRW
SCALE OF SHEET SHOWN
VEN SCALE: NONE
LAST UPDATED: 11/28/2007
DATE PLOTTED: 11/28/2007

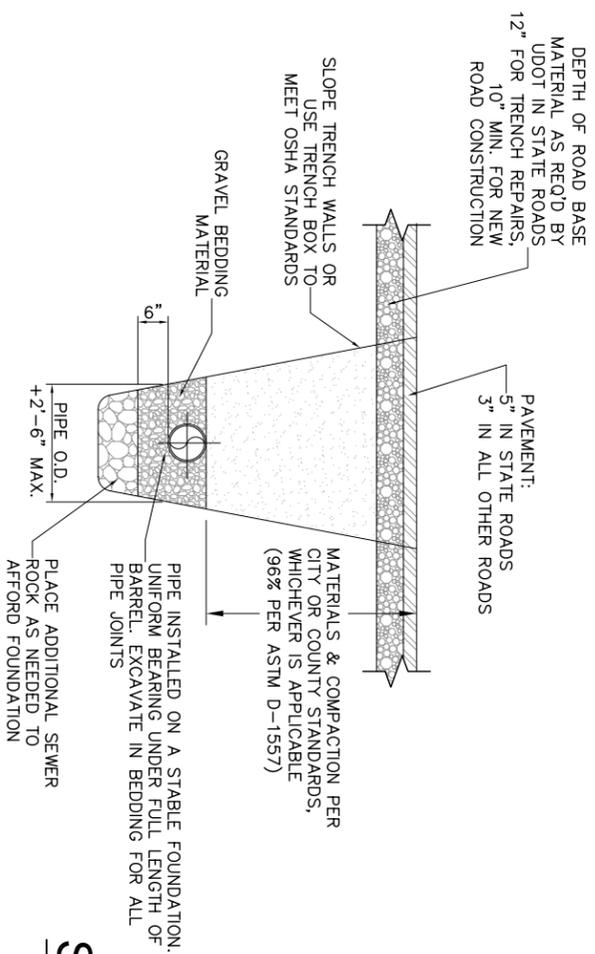


TYPICAL SEWER TRENCH SECTION (UNIMPROVED & LANDSCAPED AREAS) SCALE: N.T.S.

- SEWER LATERAL NOTES:
1. CLEANOUTS ARE REQUIRED AT A MAX. OF 50'-0" SPACING ALONG LATERALS.
 2. CLEANOUTS MUST BE LOCATED AT PROPERTY LINE.
 3. TAPS ON EXISTING MAIN SHALL BE CORED AND ROMAC SEWER SADDLE W/ STAINLESS STEEL BANDS OR APPROVED EQUAL.
 4. SANITARY SEWER LATERALS TO BE WHITE PVC, TO DIFFERENTIATE FROM GREEN LAND DRAIN LATERALS.
 5. CONTRACTOR TO EXTEND SEWER LATERAL 10'-0" BEYOND PROPERTY LINE. MARK END WITH 2X4, PAINTED WHITE.



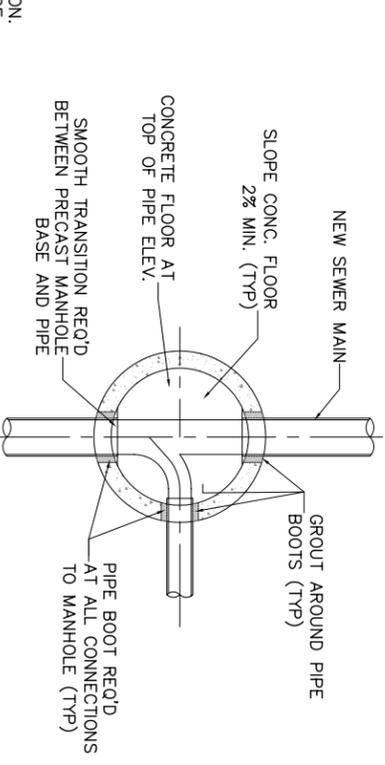
PROFILE OF TYPICAL SEWER LATERAL SCALE: N.T.S.



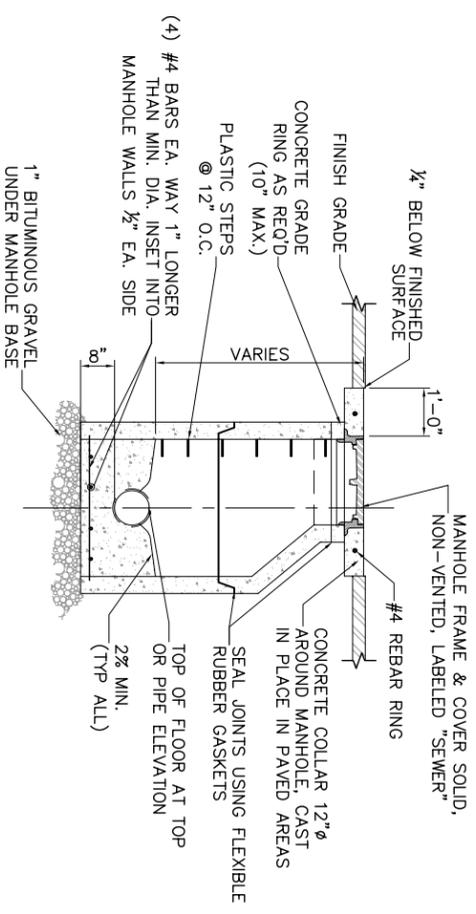
TYPICAL SEWER TRENCH SECTION (PAVED AREAS) SCALE: N.T.S.

- SEWER MANHOLE NOTES:
1. CONCRETE COLLARS FOR MANHOLES SHALL BE INSTALLED AS SHOWN ON SHEET 2, SURVEY MONUMENT SECTION.
 2. MANHOLE WALL AND CONE SECTION SHALL CONFORM TO ASTM C-478.
 3. MANHOLE SHALL BE 5'-0" Ø IF SEWER MAIN IS GREATER THAN 12" Ø, OR IF MORE THAN THREE SEWER MAIN PIPES CONNECT TO MANHOLE, OR IF OTHERWISE SPECIFIED ON DRAWINGS.
 4. LIFT HOLES SHALL BE FILLED W/ GROUT.
 5. MANHOLE ONE SHALL BE CONCENTRIC.
 6. NO STEPS IN CONE OR MANHOLE WALL.
 7. IF MANHOLES ARE TOO SHALLOW FOR CONE SECTION, USE FLAT CONCRETE LID INSTEAD.

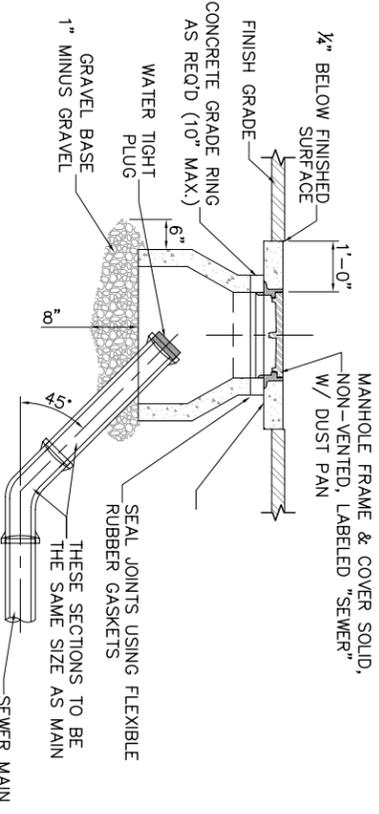
NOTE:
GRAVEL BASE TO BE 12"
LARGER THAN O.D. OF
MANHOLE CONE.



SEWER M.H. PLAN BELOW CONE SCALE: N.T.S.



TYPICAL SEWER MANHOLE SECTION SCALE: N.T.S.



TEMPORARY SEWER MAIN CLEANOUT SCALE: N.T.S.

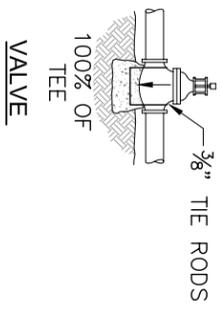
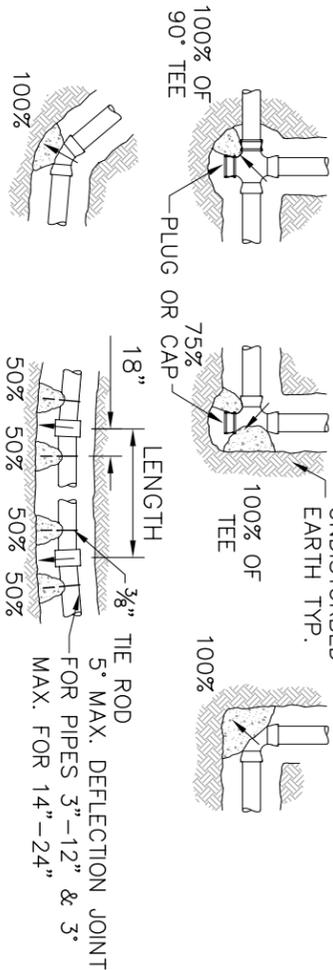
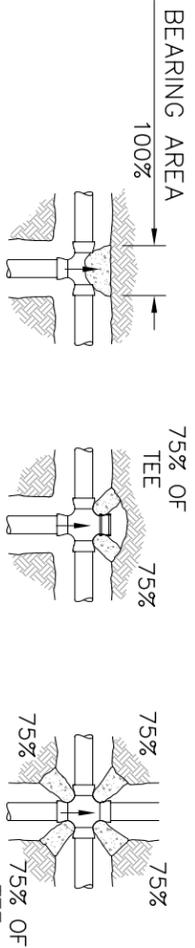
REVISION			
NO.	DESCRIPTION	BY	DATE

DEVELOPMENT STANDARDS
CLINTON CITY CORPORATION
STANDARD SEWER MANHOLE AND
MISCELLANEOUS DETAILS

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ALL MJ AND FLANGED FITTINGS TO BE WRAPPED WITH POLYETHYLENE WRAP PRIOR TO POURING THRUST BLOCK.

- DETAIL NOTES:
1. FIGURE (100%) AT THRUST BLOCK INDICATES PERCENT OF TOTAL THRUST TO BE APPLIED FOR BEARING AREA.
 2. ARROW (→) INDICATES THRUST DIRECTION.
 3. CONCRETE FOR THRUST BLOCKS TO BE 2000 P.S.I.

EXAMPLE:
 8" 90° ELBOW, PRESSURE-200 LB. / SQ. IN.
 FROM TABLE: THRUST = 94 X 200 = 18800 LB.
 ASSUME BEARING STRENGTH OF SOIL = 2000 LB. / SQ. FT.
 18000 = 9.4 SQ. FT. = AREA OF BEARING REQUIRED
 2000

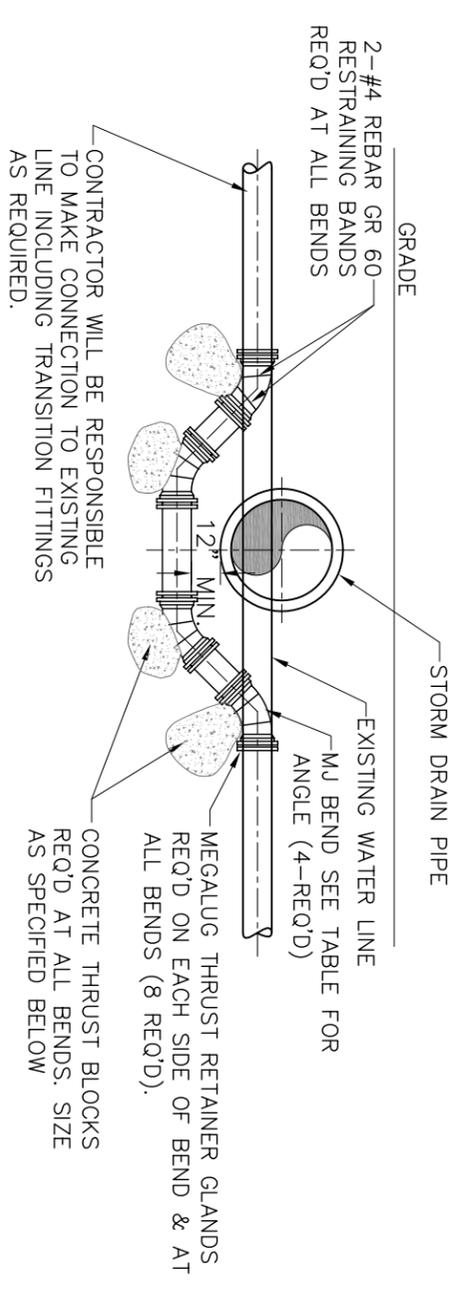
PIPE DEAD END SIZE	THRUST END OR TEE	PER 90° ELBOW	PER 45° ELBOW	PER 22 1/2° ELBOW
4	19	27	15	7
6	39	55	30	15
8	67	94	51	26
10	109	154	84	43
12	155	218	119	61
14	210	296	161	82
16	272	383	209	106
18	351	494	269	137
20	434	611	333	169
24	623	878	478	244

TABLE NOTES:

1. IN USING THE ABOVE TABLES, USE THE MAXIMUM INTERNAL PRESSURE ANTICIPATED (I.E. HYDROSTATIC TEST PRESSURE, POSSIBLE SURGE PRESSURE DUE TO PUMP SHUTOFF, ETC.)
2. SEE SOILS REPORT FOR BEARING STRENGTH OF SOIL IN THE ABSENCE OF A SOILS REPORT, AND AVERAGE SOIL (SPADABLE MEDIUM CLAY) CAN BE ASSUMED TO HAVE A BEARING STRENGTH OF 2000 P.S.F.

HORIZONTAL THRUST BLOCK DETAILS

SCALE: N.T.S.



BEFORE RELOCATING AN EXISTING WATERLINE THE CONTRACTOR SHALL NOTIFY ALL AFFECTED BUSINESSES AND RESIDENTS 24 HOURS BEFORE CONSTRUCTION. THE CONTRACTOR MUST DEMONSTRATE TO THE CITY THE ALL OF THE MATERIALS ARE ON HAND THAT MAY BE NEEDED BEFORE RELOCATING ANY WATERLINES. RELOCATION OF WATERLINES WILL NOT BE STARTED AFTER 10:00 A.M. THE CITY SHALL OPERATE ALL MAINLINE WATER VALVES AND THE CONTRACTOR MUST CONTACT THE CITY IF SERVICE IS REQUIRED.

NOTE:
 ALL MJ AND FLANGED FITTINGS TO BE WRAPPED WITH POLYETHYLENE WRAP PRIOR TO POURING THRUST BLOCK.

VERTICAL THRUST BLOCK DIMENSION TABLE

PIPE SIZE	BEND ANGLE	BEARING AREA (SF)	GRAVITY BLOCK SIZE CY
4	45	1.0	0.5
6	45	2.0	0.75
8	22.5	2.0	0.75
10	22.5	3.0	1.0
12	22.5	4.0	1.5
12	11.25	2.0	0.75

DIMENSION TABLE CONDITIONS:

LINE PRESSURE - 120 PSI
 SOIL BEARING CAPACITY - 1500 PSF
 CONCRETE FOR THRUST BLOCKS TO BE 2000 P.S.I

VERTICAL BEND

WEIGHT OF CONCRETE TO RESIST 100% OF TOTAL THRUST

WATERLINE LOOP DETAIL

SCALE: N.T.S.



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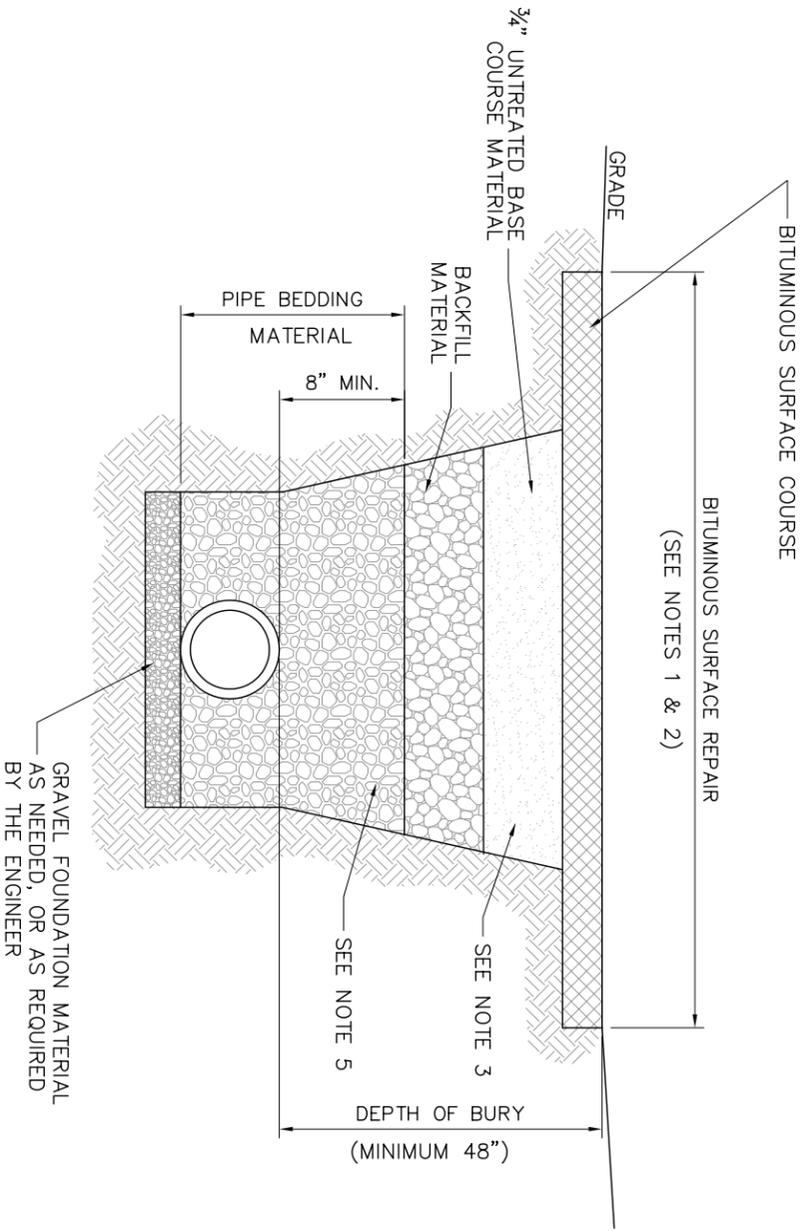
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DEVELOPMENT STANDARDS
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HORIZONTAL AND VERTICAL THRUST
 BLOCKS AND WATER LOOP DETAIL

FILE: 13 THRUST_BLK.WATER_LOOP
DRAWN BY: ECG
DESIGN BY: RMV
CHECKED BY: RMV
SCALE OF SHEET SHOWN
VEN SCALE: NONE
LAST UPDATED: 11/28/2007
DATE PLOTTED: 11/28/2007
SHEET
13
OF 15

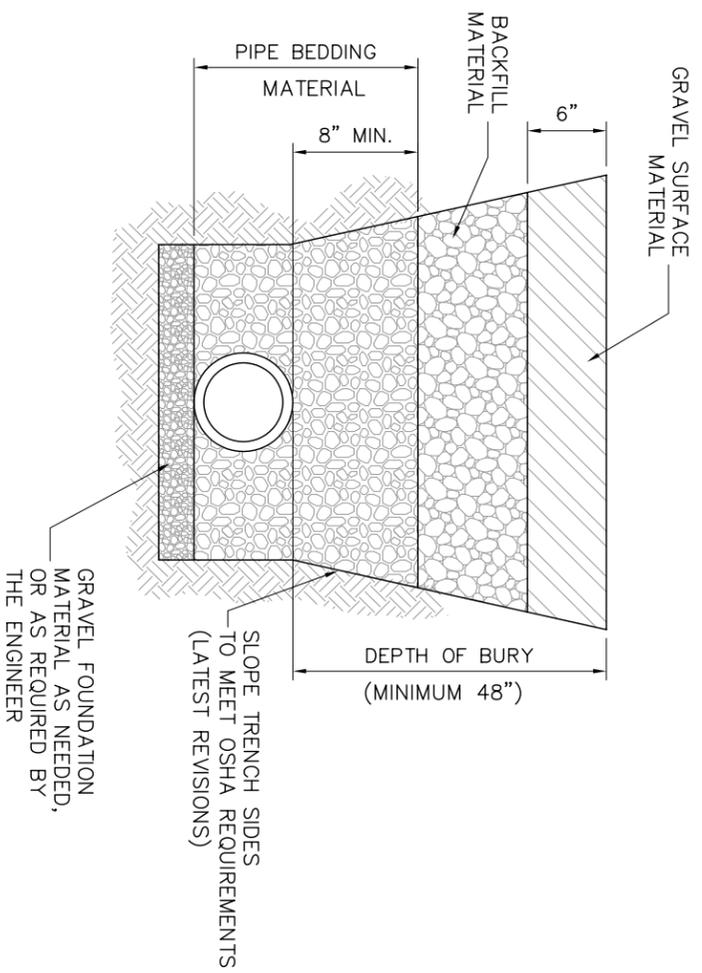


BITUMINOUS SURFACE

SCALE: N.T.S.

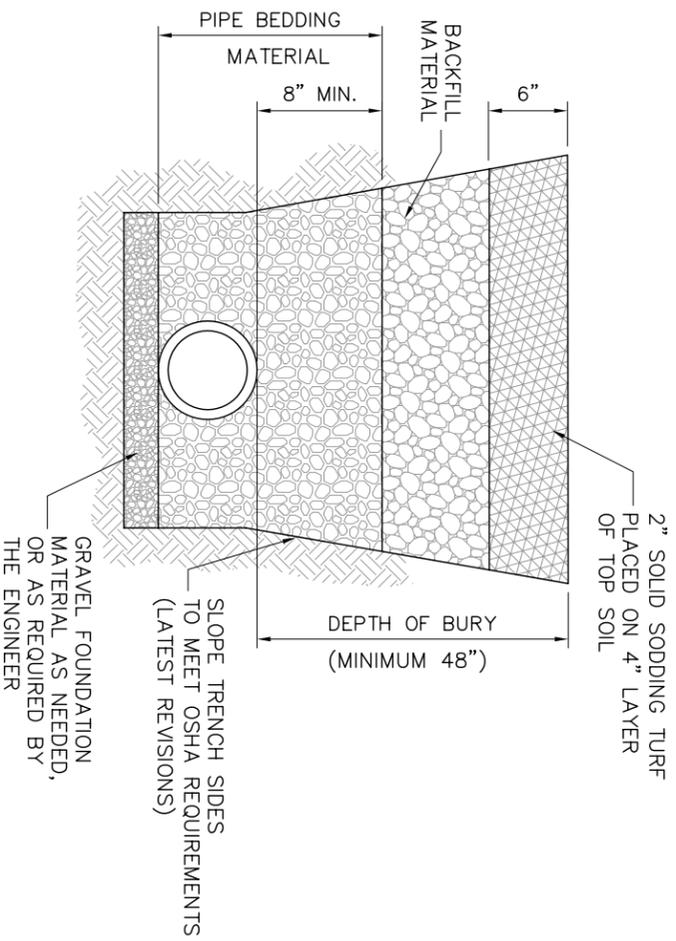
- NOTES:
1. SAW CUT BITUMINOUS ASPHALT SURFACE 6" WIDER THAN TRENCH ON EACH SIDE FOR FINAL TRENCH REPAIR WHERE BITUMINOUS SURFACE EXISTS.
 2. BITUMINOUS SURFACE IS TO BE 5" OR TO MATCH EXISTING THICKNESS, WHICHEVER IS GREATER FOR STATE ROADS & 3" OR MATCH EXISTING THICKNESS, WHICHEVER IS GREATER FOR OTHER ROADS.
 3. FOR TRENCH REPAIR, 3/4" UNTREATED BASE COURSE MATERIAL IS TO BE 12" OR TO MATCH EXISTING THICKNESS, WHICHEVER IS GREATER. FOR NEW ROAD CONSTRUCTION, 3/4" UNTREATED BASE COURSE MATERIAL IS TO BE 10" MIN. OR AS DIRECTED BY THE ENGINEER. BASE COURSE TO BE COMPACTED TO 96% ASTM D-1557.
 4. SLOPE TRENCH SIDES TO MEET OSHA SAFETY REGULATIONS. (LATEST REV.)
 5. BACKFILL TO BE COMPACTED TO 96% ASTM D-1557 IN ROADWAYS AND 90% IN LANDSCAPED AREAS.

CULINARY WATER TRENCH SECTIONS



GRAVEL SURFACE

SCALE: N.T.S.



TURF SURFACE

SCALE: N.T.S.

DEVELOPMENT STANDARDS
CLINTON CITY CORPORATION

CULINARY WATER TRENCH DETAILS

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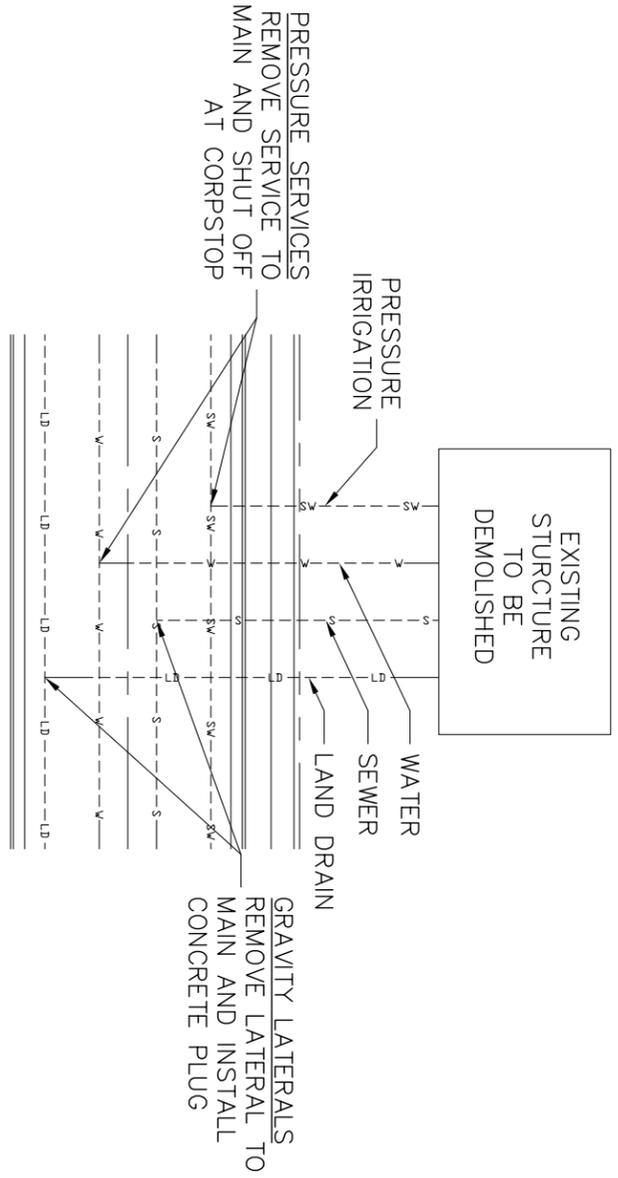
REVISION			
NO.	DESCRIPTION	BY	DATE

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FILED TRENCH
DRAWN BY: ECG
DESIGN BY: BRW
CHECKED BY: BRW
SCALE OF SHEET SHOWN
VER. SCALE: NONE
LAST UPDATED: 11/28/2007
DATE PLOTTED: 11/28/2007
SHEET
14
OF 15



NOTE:
 IF UTILITY SERVICE LATERALS ARE TO BE REUSED, THE CONDITION MUST BE DETERMINED BY THE CONTRACTOR/OWNER. IF THE CONDITION OF THE LATERALS DOES NOT MEET CURRENT STANDARDS, THE LATERALS MUST BE REPLACED TO THE MAIN LINE.

UTILITIES FOR HOME DEMOLITION

SCALE: N.T.S.



Engineers • Surveyors • Planners

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NO.	DESCRIPTION	BY	DATE

DEVELOPMENT STANDARDS
 CLINTON CITY CORPORATION

DEMOLITION DETAILS

FILES: DEMOLITION
 DRAWN BY: ECG
 DESIGN BY: BRW
 CHECKED BY: BRW
 SCALE OF SHEET SHOWN
 VERTICAL SCALE: NONE
 LAST UPDATED: 12/6/2007
 DATE PLOTTED: 12/6/2007